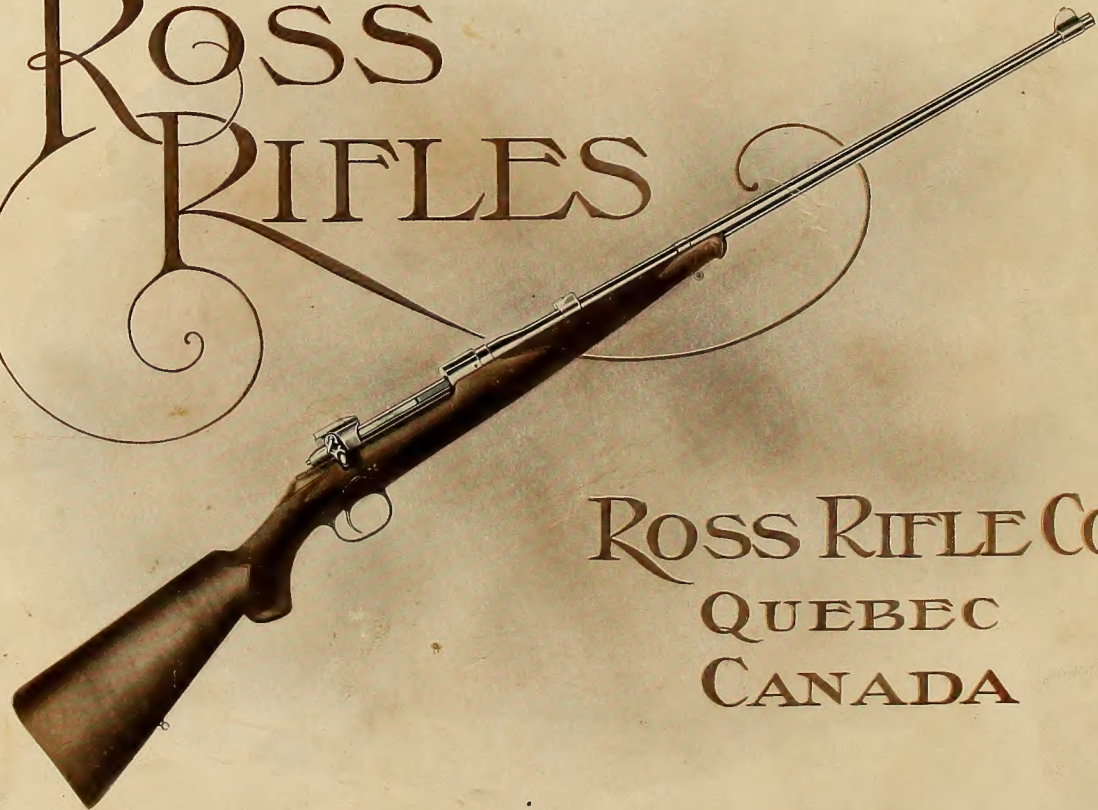



# ROSS RIFLES



ROSS RIFLE CO.  
QUEBEC  
CANADA



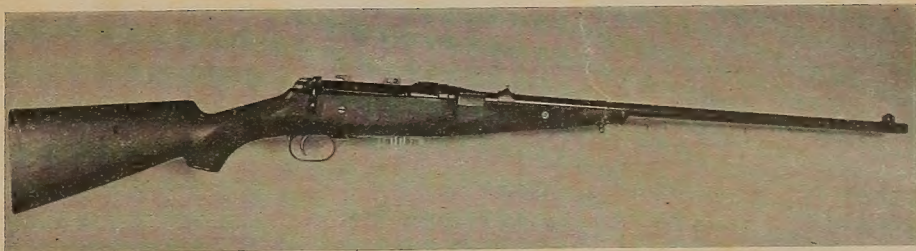
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# "The Rifle of My Dreams"

AND A LITTLE OF ITS FAMILY HISTORY

By Edward C. Crossman



THE ROSS STRAIGHT PULL .280 RIFLE

REPRINTED FROM ARMS AND THE MAN

The National Military and Shooting Weekly

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# "The Rifle of My Dreams"

AND A LITTLE OF ITS FAMILY HISTORY

By EDWARD C. CROSSMAN

IT has been preceded by a relative embodying most of the good points common to that family, but, like other sorts of relatives, this one had several objectionable characteristics.

The relative was wonderfully accurate but the barrel was too long. It hung well, but it was a trifle too heavy. Its straight-pull bolt in speed of fire made the box magazine lever gun look like unto the trickling of New Orleans black jack molasses from the cask on a chill day, but the safety lock thumb piece was not in quite the right position.

The stock was of fine wood, but there was too much of it. Its velocity of 3150 foot seconds, coupled with its accuracy, made game killing feasible at a far longer range than with any other existing arm, but its sights were too crude for the fine work of which the rifle was capable.

And so, with the faults of the existing gun plainly in view, there grew the specifications of the ideal gun, until one day the plans were worked out in wood and steel, and the rifle started on its long journey to the Southwest.

Between the checked steel butt plate and the slim blue muzzle are the results of half a lifetime's intelligent experimenting on the part of the world's foremost authority on firearms. And besides, there are all the cranks and whims of the fellow for whom the rifle was built—all save one.

Its owner, possessing a sporting Springfield, a double rifle, a made-to-order Sauer-Mausers and other arms of like class, is at last up a stump—unable to think up a rifle to wish for.

This Ross—it is a Ross, of course, else it could not have been described as it has been—is probably the most perfect game-killing weapon in these United States, excepting possibly other rifles by the same maker.

Its velocity is 3150 foot seconds with 150 grain bullet, or 3300 foot seconds if one desires to use a bullet as deficient in sectional density as our New Springfield. It is even more accurate than our New Springfield. It uses the most modern form of game shooting bullet, a carefully made Spitzer, capable of groups as small as our best New Springfields, and yet collapsing on impact and making a fearful wound. One cannot cavil at the accuracy of a weapon that will shoot six inch groups at 500 yards and that has the following family history:

At Bisley, 1908, 15 shots at 900 and 1000 yards, possible at 900, 72 out of 75 at 1000. Edge Match Rifle Competition, 15 shots at 1000 and 1100

yards. Ross won, score 73 and 73. User finally won the long range championship of England for 1908.

And next year, with the angle for match shooting still further closed in by gain in velocity, the bull-headed Eley layout knocked the Ross's fine record higher than a kite by making ammunition according to their ideas, instead of following Sir Charles Ross's specifications.

One cannot pick flaws in the balance of this fine rifle nor criticise workmanship so perfect as it shows.

Even the hardest bitten of the speed of fire maniacs cannot find fault with the talk of a gun that can out-gabble any lever action of equal recoil and hold its own with the automatic.

Therefore, if this rifle be not the finest game shooting arm in existence, what is?

The rifle weighs  $7\frac{1}{2}$  pounds. To the minds of some cranks this is overly heavy. To others it is still shy of the proper avoirdupois.

Those who fancy shooting 150 grain bullets at 3150 feet seconds, out of featherweight guns, can have their every desire met—the Ross Company makes these rifles to weigh 6 pounds 12 ounces. They are welcome to their choice. Likewise, the gentleman who enjoys carrying things can have a Schuetzen barrel built on his rifle, without getting into any argument with the owner of this one.

The barrel is 26 inches long, selected out of a choice of 28 inches and 24 inches, for the reason that the 24 inches interferes with the ballistics of the rifle and the 28 inch is too long for packing around brushy mountains.

The stock is made with the full pistol grip on the lines of our made-over sporting Springfields, the grip capped with steel and the butt fitted with checked steel butt plate with a trap therein. The wood well figured, curly, imported walnut, as hard as bone and as difficult to split.

The finish is the dull, glintless finish of the best London makers—not varnish, nor yet the insufficient oil bath of the New Springfield stock. In years the London finish acquires the dull, rich polish that only the handwork will produce.

The grip, the forestock, the trigger, and the forward side of the bolt handle are checked. The barrel is turned with handsome taper, larger than the Springfield at the breech, smaller at the muzzle. The rifle balances like the traditional shotgun, rather an indefinite form of compari-

son, but the gun meant is the fine English sort—not the product of the Malleable Parts & Thrown Together Company.

The metallic sights consist of a see-saw rear leaf with "V" cut therein. One side of the "teeter-totter" is for 200 yards, the other for 500 yards. The bow end of the combination consists of a gold bead. All the sights and the forestock fastener as well, are banded about the barrel—not stuck in slots that approach the bore uncomfortably close and assist the barrel to perform the gyrations of an agitated six ounce rod.

But these metallic sights are not all.

In a brown, heavy, sole-leather case besides the rifle, there came to hand a telescope sight fit for the rifle on which it was to go. And that means a good sight. It is a Goertz Pernox, a glass rarely seen in this country and not stocked by the dealers. It is useless to point out the quality of all Goertz productions. This sight is fully up to the standard and most of the approved design into the bargain. It is of the prismatic type, the prisms set in a box that projects slightly from the top of the tube. It is but eight inches long and weighs, case, sling strap and all,  $1\frac{1}{2}$  pounds. Elevation is obtained by moving a milled wheel on top of the tube, which in turn raises and lowers the "cross-hairs" in their frame.

The power is  $3\frac{1}{2}$  diameters; the field 16 feet at 100 feet. If you desire, make comparisons between this and the best American glass you can find of equal power. Unless you have used the prismatic type of telescope you cannot appreciate the brilliancy of the field of this sort of glass.

The cross-hair, so-called, consists of a thin steel picket, running to a point just above the horizontal hair—another piece of steel. Neither vertical nor horizontal hair is open to the charge of being frail, that can be brought against the hairs of the ordinary type of glass.

The mount, as worked out by the Ross Company, is the first satisfactory design the writer has seen. The glass can be attached to the rifle as easily as a shell can be inserted into the magazine, and can be yanked off with

equal promptness. Ordinarily it should be carried in its case to prevent damage occurring to it, and added to the rifle when occasion requires.

Maybe there is a simpler and stronger form of mount for the telescope sight. If so I hope to own one, it should be perfection itself.

The German makers habitually mount thier telescopes to bolt guns by screwing mount plates to the covered over bridge part at the rear end of the Mauser receiver, and to the receiver where the barrel joins. And by so doing they weaken the portion of the receiver supporting the strain of the upper locking lug. Occasionally this is blown out when so weakened.

Mounts with either the forward or both ends attached to the barrel endanger the telescope by transmitting the barrel vibration and flip. Thus cometh the evil repute of the telescope as a frail thing and poor.

The metallic sights on my Ross are entirely visible when the telescope is on the rifle. The glass is set just a trifle to the left of the center, to enable the user to load the magazine and yet not carry the face from the stock in aiming.

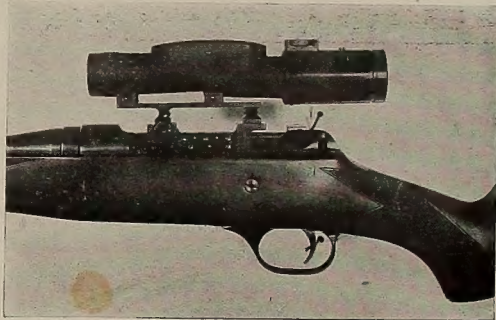
The forward fixed mount can be moved laterally by loosing the heavy screw, allowing the telescope to be adjusted with the zero of the rifle. In no sense is it a wind gauge, nor is such a device desirable on a hunting rifle designed for rough work.

Once more pass in review the details of the arm and get on the palimpsest of your mind its image.

Accuracy equal to that of any arm in the world; trajectory the flattest; action the fastest; bullet the dead-

liest of the small bore tribe. Now affix the most perfect of modern telescopes to the arm, put it in the hands of a person able to hold hard enough to score possibles at 500 yards, and how far away, think you, the combination can slay game? Is my enthusiasm misplaced or extravagant?

The Ross uses the Mauser pattern of double column magazine. The follower, however, is not pushed up by a double leaf spring, but by a lever pivoted in the forestock and actuated by a spiral spring below it. On the Ross in question, this lifter lever is fitted with a checked finger piece, placed where the fingers of the left hand curve around the forestock. By slightly depressing the fingers the magazine becomes merely an open box



Showing the Telescope on the Rifle



with the follower on the bottom. The shells are dropped in and arranged in correct position by slightly moving the finger piece as they drop.

Another good feature of this arrangement is that the rifle can be closed on an empty chamber, by merely depressing this finger-piece enough to drop the top shell out of the path of the bolt. Thus it is not necessary to regrip the rifle at the receiver and press the shell out of the way with the thumb, as with the Mauser and Springfield.

The bolt, as most cranks know, is of the straight pull persuasion, having rotating locking lugs that engage in shoulders cut in the receiver at the head of the cartridge. Motion of rotation is given the bolt by the spiral grooves in the sliding bolt sleeve engaging in the spiral ribs on the bolt proper—the same principle as the well-known spiral screw-drivers.

Mannlicher used this scheme on his most successful straight pull rifles—on the only successful ones, to be accurate. The merits of this type of bolt mechanism have been demonstrated not only by the Canadian officials in adopting the Ross rifle, but by our *own Ordnance Department* in their tests of the Ross.

The present Austrian rifle, Model of 1895, the new and the old patterns of Schmidt-Rubin of Switzerland, and the Canadian Ross are straight pull rifles and alike in principle. There is no record of their having proved unsatisfactory or the Swiss would not have retained this action in their new rifle.

The British Text-Book of Small Arms for 1909 says, regarding the straight-pull bolt:

"The straight-pull bolts can be operated a trifle more quickly and are more easily worked without removing the rifle from the shoulder; also the straight-pull bolt is *less likely* to be jammed by sand than a rotating bolt, for the latter draws the sand down between bolt and the left side of the body when it is opened and occasionally causes a serious jam." Nuff ced.

The bolt handle on the writer's rifle is bent down close to the frame, giving a pull to the rear more nearly in line with the travel of the bolt, and making a much neater looking rifle than those with the handles sticking out some distance. The thumb piece of the safety lock is bent down nearly flush with the bolt handle so the thumb can be pressed nearly full length on the rear surface of the bolt handle over the safety-lock. There may be faster actions, but the writer has not seen them.

There is no arm motion required as compared with the turnbolt, simply a back and forth snap of the wrist and forearm. It is not at all difficult

to get off five shots in five seconds with an aim enough to hit a deer at 50 yards. The writer hereby undertakes to convert any user of a lever gun from the error of his ways, if he will agree to use a rifle shooting cartridges of *equal recoil* to the .280—the 1906, the .35 or the .405 Winchester.

Forty-seven shots in ninety-four seconds including reloading is a fair record for offhand; fifty shots in one hundred and nine seconds is not bad for prone shooting, and fifty shots in ninety-eight seconds is not much worse when using the kneeling position—particularly when 20 per cent of the shots hit the bullseye used in the test. The poor Lee-Enfield used in the test took three hundred and forty-five seconds to shoot forty-six rounds in the prone position.

With the rifle came two Ross letterheads of the standard commercial size, 8½ by 11 inches. On each was a group of ten shots made by the writer's rifle from machine rest. One group measures 7¾ inches, the other measures

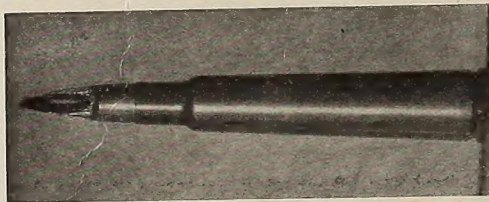
5¾ inches. They were shot at 500 yards. In the larger group the mean radius is 2.35 inches; in the smaller it is 1.70 inches. Do you know of a rifle that will equal this?

It must be pleasing to get out a perfect rifle, to work out a new cartridge that is miles ahead of anything yet produced, to see your rifle achieve final success in the greatest rifle matches in the world, and then next year to have the rifle forced out of the hands of its best friends by the impossibility of getting ammunition that would hit a flock of livery stables at a hundred fathoms.

Sir Charles Ross says that Job had a snap compared with the troubles of the modern rifle designer. The .280 Ross cleaned up the field at Bisley in 1908, establishing records at the extreme ranges that still stand unbroken.

With the accuracy of the cartridge firmly established, the action of the rifle proven to be perfect, and a new game killing bullet ready for those who like their bullseyes on the hoof, it seems to me the ivory-headed gentlemen who run things for the Eley layout proceeded to kick the rifle's good record into a hodge-podge that looked like the arriving place of two fast freights head on, and only one set of rails to handle them.

Not satisfied with altering Ross's carefully worked out bullet jacket composition, they proceeded to vary the even run of the bullets to keep things from getting monotonous. The result of their brilliancy was that the next year the markers used to spot the Ross bullets about six targets to the right or left of the place shot at, and the barrels looked like the



The Ross .280 Copper Tube Cartridge; Bullet cut open to show hollow copper point

best vein in the best copper mine of the Butte country. The reputation of the Ross as a target gun was swept away even faster than it had been established.

To further tickle the Ross factory president, the Eley layout took his pet copper tube bullet, a perfect form of game killing projectile when made according to his specifications, and proceeded to turn it out in a form that wouldn't open up on a freight engine, let alone a deer. Pleased with the reports they received—that it took eight of these cartridges to kill where one should be enough—they varied the powder charge as much as two grains so the bullet would not hit a three-foot square at 400 yards.

Result, letters such as that of "Joy" reprinted in *ARMS AND THE MAN* a few months ago. The reason is that the walls of the copper tube were not made according to specifications, and the blame bullets were merely Spitzers with weak and undecided bows. The photograph printed with this article shows the state of the properly made bullet when fired into wood—even from a rifle with as low a velocity as the .303 British.

Ross arose in his wrath, drew up specifications for the cartridge and the bullet, as they should be, got some powder from our DuPont Company, painted a picture of a large and angry Scotch gentleman with a large and warty club, and set out in search of a cartridge company able and willing to make good ammunition, with the aforesaid picture before them as a reminder.

The designer insists on the bullets being made in a manner that will give possibles at 1200 yards, even though intended for game shooting alone. In our factories the name of game killing bullet seems to be synonymous with game missing bullet. Witness our ordinary ammunition giving groups between 8 inches and 14 inches at 200 yards.

One hundred thousand copper tube bullets, made according to Hoyle and tested for every evil under the sun, including eccentricity and strabismus, have been turned out for Ross. An equal number of cartridge

cases of a quality up to our Frankford stuff—never true of the Eley .280 case—have been taken in hand by a well-known factory. This year will see the Ross again where it belongs.

Without question the .280 cartridge is the most perfect in the world at the present time, from a military standpoint. To the writer's mind the rifle also comes under this classification.

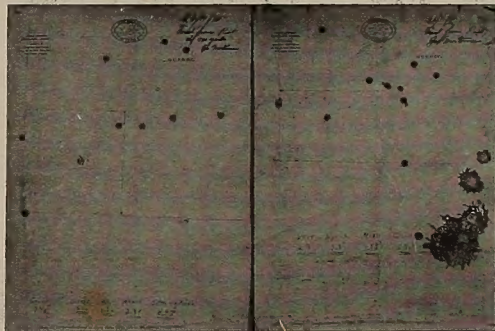
The action is without doubt stronger than that of our New Springfield, being designed for a back-thrust under ordinary circumstances 25 per cent greater than that of the 1906 cartridge. This is due to the large size of the .280 shell at the rear end of the powder chamber.

The Springfield locking lugs are supported by the metal in the receiver at its top and bottom, the bolt lugs locking in a vertical position. The Ross bolt locks so the lugs lie on either side of the receiver, not at its top and bottom. The lugs are cut into a form not unlike the interrupted thread of our naval rifles' breech plugs. The lugs are supported not only by the shoulders into which they turn, but by the heavy receiver sides running back on either side of the rifle.

So far the only way our Springfields have let go is by the breakage of the locking lugs, either from overloads, obstructions in the barrels, or through faulty tempering of the lugs to the point of brittleness. In spite of this the Ross is unquestionably superior in theory in its locking arrangement. The weakening of the Mauser top-lug recess by the telescope mounts, and

the resultant blow-out mentioned before, show what might happen with a flaw in this shoulder or an accidental weakening of the metal.

Ross has stated positively that the ordinary Mauser action will not handle the .280 cartridge with its 50,000 pounds working pressure. He has pointed out that the back-thrust on the Ross bolt was about 11,000 pounds, depending of course upon the condition of the chamber with regard to oilness. That the working pressure of the Mauser cartridges developed a back thrust of only 7,000 pounds. This, taking the standard 8



Two Groups Shot with the Rifle and Good Ammunition

Range 500 yards, ten shots per group. Left group 7.3-4 inches, right 5.3-8 inches  
Shot by Mortimer, well-known Canadian shot



and 7 mm. cases and a working pressure of 40,000 pounds per square inch. The Mauser action would hold the cartridge all right—the barrel will usually quit before the bolt—but according to Ross the lugs would so set back into their receiver shoulders that mishires would soon result.

In spite of this, along came Charles Lancaster with not only Mausers but even double rifles to handle the .280 cartridge. Westley Richards followed suit. The writer, desiring to unearth this particular Ethiopian, procured some of the .280 cartridges used by Lancaster, *et als*. The unearthing was a howling success.

It is hardly necessary to say that nitroglycerine powder gives lower pressure than nitro-cellulose, velocities being equal. It is even less worth while to restate the results of using nitroglycerine powders in large charges, as far as the life of the rifle barrel is concerned.

Yet on opening one of these genuine .280 cartridges—made by the Kings Norton Metal Co.—the writer discovered a nice little package of M. D. Cordite—42 grains of it! Worse and more of it, the bullet weighed but 135 grains instead of the regulation 150 grains for the genuine .280.

Using this bullet and this powder, Ross could get around 3600 foot seconds in his rifle without running up the pressure unduly. The fake developed 2900 foot seconds and a working pressure of 40,000 pounds, entirely within the limits of the Mauser action.

The writer would surely enjoy paying Lancaster around three hundred cartwheels for a double rifle, in which to shoot 42 grains of Cordite and an inferior bullet with the point sawed off. The barrels would be even more innocent of rifling after a couple years' use than when they started out.

The advent of the .280 case, with its years of experiment, brought out a flood of cartridges equal to the .280 on paper. The secret lay in every case in the light bullet used, or in the nitroglycerine powder, or both. Rigby put out a Mauser for the 7 mm. case, for which he claimed 3000 foot seconds. He conveniently forgot to mention bullet weight and powder—one being but 135 grains as compared with the standard 170 grains and the other being Axite with an affinity for barrel steel nearly equal to Cordite itself.

As Ross puts it, if he could have gotten 3150 foot seconds with the 7 mm. case and nitro-cellulose, using a bullet of the required weight, he would not have gone to the trouble of making a new case. Conversely if anyone can get 3000 foot seconds with the 7 mm. case and a bullet of the required sectional density, with nitro-cellulose behind it, then by using the bigger .280 case, still greater velocity can be obtained. So far the powder that will accomplish this has not appeared on the horizon.

Our 1906 cartridge is a makeshift like the 8 mm. of Germany and the new .303 pointed bullet, British army cartridge. It is a good cartridge, but its limit is reached with our present powder. And if better powder—powder giving higher velocities for the same pressure and erosion—is turned out,

then the .280 cartridge will again stride ahead faster than can the 1906.

Consider the cold blooded process of elimination that was responsible for the .280 cartridge, compare it with the history of our 1906—groping attempts for a satisfactory cartridge without reason or consideration—and you can see plainly why the .280, for military purposes, so far outclasses any other.

Ross took it that at least 3000 foot seconds velocity was necessary for military purposes—a point blank danger space nearly to the limit of a soldier's ability to discern a single man over his sights. He concluded that with the steadily decreasing weight of our rifles, a fixed limit of recoil could not be exceeded.

Calculations showed that a bullet of 150 grains at 3000 foot seconds

reached this limit, even with the present weight of rifles. Other calculations and experiments demonstrated that the weight of a satisfactory Spitzer bullet—excluding the boat-tailed type—must be so proportioned to its caliber that its sectional density will fall between 2325 and 2795 grains per square inch. The .256 bullet has been demonstrated to be outside the pale of effective military projectiles, through its small diameter and its consequent lack of shocking effect. It is well enough to wound a man and thereby give his army the trouble of caring for him, but it is also desirable to at least make him cognizant of the wound, instead of leaving it to be discovered a few days later by the hole in his clothes.

The .30 caliber, on the other hand, drops outside the charmed circle of sectional density figures, giving but 2000 grains per square inch with



Some Game Shooting Bullets of Modern Guns

Left to right, two 190 gr. New Springfield soft points; three Ross copper tube Spitzers, fired from .303 with but 2000 ft. seconds velocity; three .220 gr. Krag soft point bullets, all fired into wood



the fixed weight of 150 grains. In other words, it is too light in comparison with its diameter, or figuring it the other way as Ross has done, its diameter is too great for the accepted weight.

Between lack of sectional density on the one hand and lack of killing power on the other, attended in the latter case also by problems in internal ballistics, owing to the high pressure the 150-grain bullet would develop, the 7 mm. was fixed upon as the mean between the two evils.

Then and not until then was the actual experimental work begun that resulted in the .280 case. Military cartridges of the future will closely approach the .280 if they possess the same advantages.

The fact that the Canadian military authorities are having the Militia equipped with the stronger .280 action instead of the older and weaker one, intended for the .303 cartridge, shows plainly that they see the coming of the new cartridge into the hands of English and Colonial troops. Once more Canada will be years ahead of the mother country when the rearmament comes. Ross has had his hands tied as far as the production of a perfect weapon for the Canadian Militia is concerned. Although the Canadian rifle has given satisfaction, yet the authorities overruled the ideas of Ross and drew up specifications on the lines of the came-over-in-the-ark English War Office rifles.

His business was to make rifles according to specifications and he did so, but not without wails and gnashings of teeth at the blunders of some of those responsible. A new rifle, just ordered for the Militia, is again full of these blunders as far as barrel, lead, chamber and external shape are concerned. But the powers that be have said it and so it must be.

It is but fair to charge these blunders to those responsible, among them *not* being Sir Charles Ross, whom the writer regards as being the world's foremost authority on the subject of rifles and ammunition. It is enough to compare his rifles in detail with the best productions of our American armorers, and his .280 cartridge with the next best cartridge in existence, to be convinced of the sound basis for this belief.

Comparing the .280 cartridge and the 1906, note that the Ross bullet would be 130 grains weight to be of the same density as the Springfield and that Ross gets 3350 foot seconds with a bullet of this "heft." The Springfield bullet would weigh 173 grains to equal the Ross 150—but we are not getting any 3150 foot seconds with 173 grain bullet, nor *will we*, with our present cartridge. For target work, riflemen shooting the Ross use a bullet of 180 grains at 2800 foot seconds. The Springfield would have to weigh 208 grains to fly neck and neck with this bullet. Wind jamming with such a bullet is rather simplified.

Jones, the crack English rifleman who won the long range championship of England with the Ross in 1908, has sent the writer a table showing the effects of wind on the .280 Ross bullet, 150 grains at 2000 foot seconds. This is, of course, much less effective than the later velocity of 3150 foot seconds for the same bullet. The table follows:

Ten mile wind, blowing across plane of fire deflects bullet—

At 200 yards, 3 inches	At 800 yards, 52 inches
At 500 " 19 "	At 1000 " 87 "

The 1906 bullet under the same conditions is deflected—

At 200 yards, 4 inches	At 800 yards, 72 inches
At 500 " 25 "	At 1000 " 110 "

Deviation of Springfield through wind, 24 per cent. greater than Ross.

Also note that over 1,000 yards of flight, the Ross bullet has to rise but 8½ feet to strike the object aimed at, while the Springfield bullet has to rise 14 feet. In a battle between forces of approximately equal strength and with skill about equal, the force armed with the .280 rifle would win hands down against a force armed with 1906 Springfield, merely through the far greater percentage of hits the .280 cartridge would give.

A trajectory 40 per cent flatter than our Service cartridge, over battle ranges, would give the troops so favored a considerable handicap over our troops.

So far the cartridge has been considered merely from the military standpoint, but for the game shooting brother it is well to point out that the Ross bullet rises but 10 inches over 400 yards—Springfield 14—but 18 inches high half way to 500 yards—Springfield 24—and but 27 inches high on the way to 600 yards—Springfield 39. At the shorter ranges the Ross rises 2 inches half way to 200 yards.

With the bill of fare of a 140-grain copper tube bullet; a 140-grain hollow nose; one of 160 grains of same form; a 150-grain affair, solid Spitzer, for target, and another of 180 grains for the same work, together with the 130-grain at 3350 foot seconds, the Ross owner does not have to feel himself tied down to any one article of diet for his pet.

Ross rifles for sporting purposes in the .280 type are perfect in workmanship, fitting and finish, but the Ross Company don't know how to stock a rifle. The work is well done, the wood is choice and the details correct—but they send them out with a grip 5½ inches around, and so long to the point of the grip that it is worth nothing as a support to the hand. Compared with Wundhammer's grip of 4¾ inches circumference and but 4 inches from trigger to point of grip, the Ross stock suffers considerably. This is merely a matter of careful specifications on the part of the purchaser to overcome.

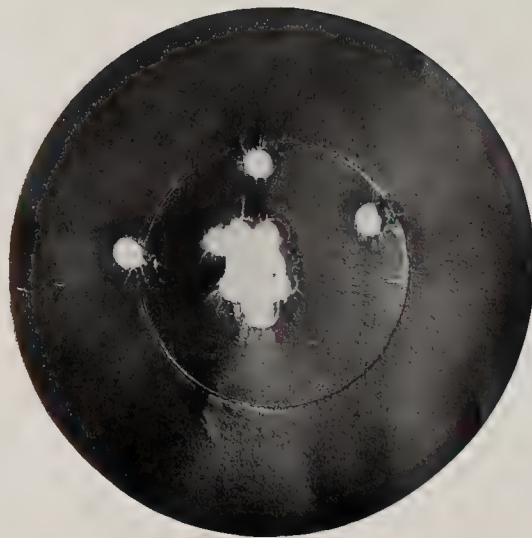
With the cartridge the finest the world can show and the rifle certainly up to any other arm on earth in its details, it is only fair to conclude that the owner of a Ross .280 rifle has an arm that present day armorers cannot equal, all things considered.

After a considerable acquaintance with various types of the world's best rifles, the writer would decline with thanks any offers of a swap, regardless of the cost of the other rifle.—*Arms And The Man.*



# ROSS RIFLES

FOUR INCH BULL  
TWO INCH CENTER  
RANGE 100 YARDS



MEAN VERTICAL .478"  
MEAN HORIZONTAL .962"  
MEAN RADIUS .440"

## THE ROSS RIFLE COMPANY, QUEBEC, CANADA

Agents for the United States

POST & FLOTO, 14 READE STREET, NEW YORK CITY

Cable Address: Balnagown, Quebec

Codes, Bedford McNeil Mining & General, A. B. C. Fifth Edition, Western Union



*Ross  
Rifles*



Ross Straight Pull Bolt Drawn Back to Show Construction

*Look  
Over  
the  
Ross*

## A FEW SIGNIFICANT WORDS BY WAY OF INTRODUCTION

### YOUR RIFLE DECIDES IT

**H**UNTING trips cost time and money and cannot always be had every year. It is poor economy to ruin a thirty-day, thousand-mile, five-hundred-dollar expedition through the inadequacy of your rifle. Naturally you would prefer a happy ride home with a splendid trophy up in the baggage car to a dismal journey with only blasted hopes for company. Upon your rifle depends the happiness and success of your hunting trip.

If you are shooting on the range the best is none too good for you. To be the winner of the big match by a straight string of bullseyes grouped close around the center of the black or the "also-ran" through one wild four, the fault of a carelessly made or incorrectly modeled weapon, is just a matter of choosing your rifle.

### HOW DO YOU CHOOSE A RIFLE?

You want the best rifle within reach of your purse. Your judgment will tell you to decide which is best upon the sound basis of facts. This booklet is intended to present to you the facts about the Ross Straight Pull Rifle. These facts are of sufficient importance to justify us in presenting them at such length as shall make them clear to you as facts. Their significance is great enough to warrant a careful scrutiny and consideration of them by you.

### COMPARE A ROSS WITH ANY OTHER RIFLE

If you will compare the Ross with any other rifle you have in mind; will examine the two from the standpoint of smoothness of manipulation, strength, and speed of action; of simplicity of parts, ease of dismounting and sureness of cartridge handling, besides the comparative accuracy and effect on game, you can reach but one conclusion—that the Ross is actually the best rifle in the world.

This is an easy claim to make, and one which might be much harder to prove than to disprove. We accept what may seem the harder task and in the following pages we do prove to you that the Ross is stronger, faster, surer of operation, easier of manipulation, and in the .280 calibre more accurate and flatter in trajectory than any other rifle.

### ROSS RECORDS ARE GOOD ONES

The figures of the Ross .280 trajectory, the target range record of the Ross and the reports of the men who have used it on game from Alaska to Africa, are all matters of authenticated record. Compare them with those of any other rifle.

### OBSERVE HOW SMALL THE RISE AND FALL OF A ROSS BULLET

One instance only of Ross superiority before we proceed: The Ross .280 bullet has to rise but three and a half inches over your line of sight to strike center at three hundred yards. The .30-40 and .30-30 bullets have to climb fourteen inches to reach the three hundred yard mark.

Unless your judgment of distance is infallible, the difference between the Ross and the poorer gun may make the difference between the happy and the dismal trip.

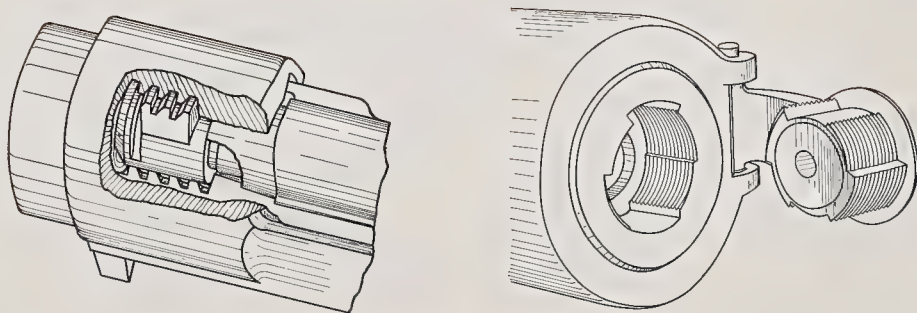
## SOME ROSS FACTS

### A RIFLE STRONG AGAINST ALL STRAINS

**T**HE Ross is the strongest of all repeating rifles. The construction of its receiver and bolt peculiar to it, and the interrupted thread locking lugs make it practically impossible to blow open the rifle. A Ross .280 rifle has never blown open. Every Ross rifle is tested to bear strains to considerably above the pressures which can be developed by the cartridge intended for use in it.

### THIS REPRESENTATION OF A NAVAL GUN AND THE ROSS BOLT HEAD WILL SPEAK TO YOU

In the following illustrations we show the construction of the breech block of the conventional type used by every modern nation in its high power heavy cannon. After it the bolt-head of the Ross, to make the similarity and the difference perfectly plain. You will observe that they are essentially the same in construction. You see now why we say the Ross is stronger than any other repeating rifle.



Ross Bolt Head and Breech of Big Gun

### FIRED AT TOP SPEED THE BULLETS ALMOST NOSE EACH OTHER OUT OF THE BARREL

The Ross rifle is the fastest action of any hand operated arm of equal recoil. Five shots have been fired from it in two seconds. Probably that time could be lowered by special effort. Fired for accuracy and speed together the five shots have been delivered in two and two-fifths seconds, making a group five inches across, at forty-five feet.



This is greater rapidity than would ever be required of a rifle in actual use, because no aim can be taken between the shots and only instinct tells the firer that the piece is pointed in the right direction. Yet it shows what the rifle can do; that it is sure of operation is indicated by the fact that this firing can be done. No rifle which did not function surely would deliver five shots from high power cartridges in this short space of time. The properly certified records of the firing referred to are in our possession and can be exhibited to anyone who desires to see them.

#### FOR EASE OF OPERATION THE ROSS IS UNEQUALLED

The Ross is the easiest action of any to operate. To function, the Ross requires only a short snappy motion of the hand from the wrist. The strain of opening the rifle and compressing the mainspring is all taken against the shoulder, where it is not noticed.

So smooth and easy moving is the Ross action that the rifle is not disturbed in its position against the shoulder by operating the bolt. The speed trials prove that, if nothing else, but you can instantly convince yourself of it by trying. Oddly enough the rifle works better when being actually fired with loaded ammunition than when manipulated empty.



Target made at 500 yards. Square represents six inches.  
Mean vertical, 1.97; mean horizontal, 2.376;  
mean radius, 1.478



Target made at 1,000 yards. White lines mark six inch squares.  
Mean vertical, 7.20; mean horizontal, 6.19;  
mean radius, 6.16

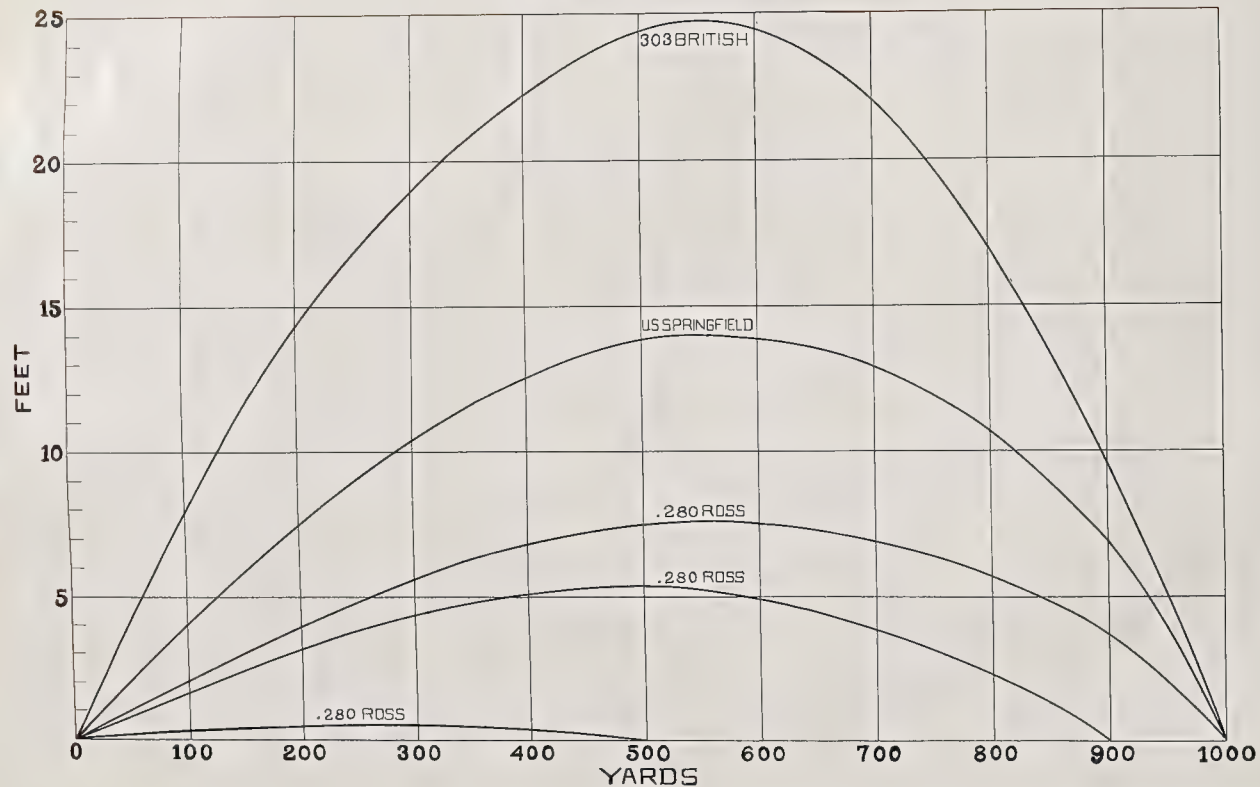
#### A RIFLE ACCURATE ALMOST BEYOND BELIEF

The perfectly constructed barrel, stopped at the rear by a bolt which is invincible, permits us to attain a muzzle velocity in our rifle which affords a flat trajectory and a consequent minimizing of error through mistakes in judging distances. The accuracy charts here shown are guaranteed to be correct in every particular. Compare the results which they contain with those obtained from any other rifle.

*Ross  
Rifles*

*Look  
Over  
the  
Ross*

# TRAJECTORY CHART



## LOOK AT THE CHART ON THE OPPOSITE PAGE

You practice no "Auntie-over" style of firing with the Ross. Within reasonable ranges you point your rifle at what you want and get it. The best way we can demonstrate that to you is to show you by a trajectory chart the way the bullets from our .280, the United States Government New Springfield, and the .303 British travel from the muzzle to their destination.

Observe it closely and see for yourself how much advantage accrues to the man who, becoming acquainted with the truth, selects a rifle of the greatest general accuracy. The Ross .280 at 500 yards makes average ten-shot groups well within a six-inch circle. Try to equal or beat this at 200 yards with the ordinary sporting rifle.

### YOU WANT TO KILL YOUR GAME WHERE IT STANDS

No man desires to send wounded animals away to suffer and perhaps to die far out of his reach, therefore he wishes a game shooting rifle so powerful that there is little chance of any animal escaping after a fair hit. Muzzle energy is not the proper basis of comparison between game shooting rifles. The shock delivered on the animal is the true gauge of game killing efficiency on the part of a rifle. Ross rifles when used with our own bullets easily excel in their capacity to dispose of any soft skinned animal, at which they may be fired. We have many letters and records which substantiate this statement.

### A RIFLE SHOULD BE CLEANABLE QUICKLY AND FROM THE BREECH

The bolt of a Ross rifle can be removed in two seconds, leaving the breech end of the barrel open to your cleaning rod and the entire mechanism accessible for any attention you may wish to give it.

### THE ROSS RIFLE LOOKS LIKE, ACTS LIKE, AND IS, A THOROUGHbred

You have to see and handle a Ross to appreciate its fine points, and our trigger-pulls are absolutely clean and light. No doctoring the action is necessary after you get your Ross. The workmanship is in every particular equal to that on any, and better than that on most, sporting or target rifles. In every way its appearance makes it a rifle to be proud of. No projecting under lever, no heavy bolt handle, no marred turn-bolt; lines and finish superb.

Every Ross sporting rifle of whatever type is rigidly inspected and tested by firing by us, but that does not end it. Every Ross Sporting Rifle is inspected and tested by the Canadian Government before it goes to the purchaser. The Government proof stamp on each rifle shows this.

### ROSS RIFLES DO NOT FAIL THEIR FRIENDS

Although its name is not yet a household word in the United States the Ross cannot be called an unknown or unproven rifle. Its sportsmen users the whole world round have found it reliable, staunch and true.

In its military form it is the regulation arm of the Canadian Regular and Volunteer forces. Ross rifles were used by the Champion Military Rifle Team of the British Empire in 1909, 1910 and 1911. (The Canadians, winners of the McKinnon Cup Team Match in those years.)



## Ross Rifles

The Ross is the rifle that twice in four years won the Long Range Individual Championship of England in keenest competitions where other makes of rifles in the hands of expert shots outnumbered it many times.

The Ross was the first rifle made in the British Empire to beat the Continental made rifles in British open matches. The Ross was the first rifle in the history of Great Britain to win in a single Bisley meeting those two highly coveted prizes, the King's Match and the Prince of Wales Match. This the Ross did in 1911, and both of these magnificent victories were secured by one man armed with a Service Ross. He shot against a large field of high class shots, most of whom were shooting other makes of rifles.

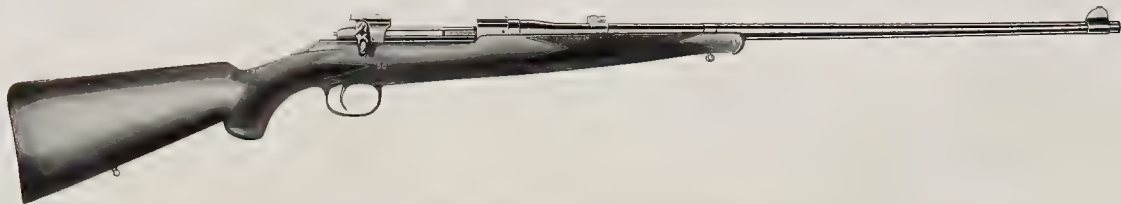
## BROUGHT RIGHT UP TO DATE

### OUR LATEST MODEL ROSS

**A**LL our experience and every fraction of our best endeavor up to the minute is embodied in what we call our "Ross Model of 1910 Action." As this action will be used in every rifle shown in this catalogue except the .22 calibre, you should be told something about it. Using it we have a stronger, faster, more reliable and more easily operated Ross rifle than ever before produced. The best points of the various designs of the Ross action, tried out by nearly ten years use in the hands of troops and by thousands of sportsmen, and the requirements of the next ten years of cartridge improvement, were kept in mind when the design was worked out.

The official rifle of the Canadian Army, made up particularly to handle the pressure of any cartridge that may be developed within the next decade. An arm with the best points of the splendid .280 Ross action and the minor defects eliminated. Designed from the ground up with the expense of new tools and new rifles not considered for a moment.

A rifle designed, not merely to handle the present cartridges, but looking ahead for years, to the time when perhaps 4000 ft. secs. velocity, steel cartridge cases, and far higher pressures will be the characteristics of military cartridges.



Look  
Over  
the  
Ross

### ROSS .280 M/10 SPORTING RIFLE

WEIGHT, about 7 lbs., 8 oz.  
LENGTH of barrel, 26 or 28 inches.  
FORESIGHT, Ross silver bead.

REAR SIGHT, Single fixed.  
STOCK, Selected Italian Walnut.  
CAPACITY of magazine, 4 Cartridges.

CARTRIDGE, Ross .280 expanding bullet  
145 gr. Copper-tube.  
PRICE, \$55.00.

## THE ROSS HAS BEEN TRIED AND NOT FOUND WANTING

A rifle that has passed the critical inspection of an army board and declared to be superior to the old and reliable forms of the Ross rifle, is not likely to balk, to blow up or otherwise give the sportsmen excuse for curses when far from repair shops.

The essential points of the old .280 locking device have been retained, but with an increase in strength over the strong former .280 bolt.

The extractor has been redesigned and we guarantee it to be the strongest reliable form used on any repeating or magazine rifle.

The receiver has been changed in shape, a bridge being added to allow a peep sight close to the eye if specially required.

The bolt has been made easier working even than the old lightning-fast .280 bolt.

The extractor is made to pick up the shell as it comes out of the magazine, giving complete control of the cartridge at all times. A false closing motion of the rifle and then a withdrawal of the bolt merely carries the cartridge back and forth along with it. "Double loading" and jams of other sorts are nearly impossible with this action.

The magazine on the Ross .280 is of the double column type and the entire cartridge feeding mechanism is detachable at the touch of a spring catch in the floor plate.

## WE HAVE MADE THE ROSS A RIFLE OF THE PRESENT AND THE FUTURE FROM THE LESSONS OF THE PAST

The friction surfaces of the bolt and receiver have been made as open as possible. Military experience has shown that it is impossible to keep grit out of a rifle under certain conditions and that the best plan is to allow the grit to work its way out or to make it as easily removable by the hands alone as possible.

The New Springfield design of bolt stop and bolt release has been added to the rifle, but in improved and simpler form.

The action, while being enormously strong, has been lightened and our sporting arms can be made to weigh 7 lbs. with all parts in due proportion and with no hollows carved out of our stocks.

An examination of the Ross Model of 1910 action, used on all the sporting and match rifles shown in this catalogue, except the .22 caliber, will demonstrate that it is as we claim—the strongest and fastest action in the world and one with all the simplicity and reliability of the best types of bolt action rifles.

## ROSS BARRELS ARE BUILT BETTER THAN YOU KNOW

### YOU SAY THE ROSS IS ACCURATE: WE ADMIT IT

**R**OSS accuracy has come to be a standard among riflemen by which other arms are judged. Of all the features that have contributed to putting the Ross Rifle at the head of the world's procession of rifled arms, the shooting of our rifle has been the most important one.

The hair-splitting accuracy of Ross Rifles is not the result of an accident, not the unexpected stumbling upon any miraculous new principle in rifle making while working on some other problem.

It is merely the deserved reward for years of concentrated, intelligent experimenting with a very complete testing plant; for a willingness on our part to work out the problem of accuracy from the ground up regardless of accepted theories; for the expenditure of probably more money in experimenting along these lines than any other rifle making concern.

Accuracy is not due to any one detail in the manufacture of barrels and ammunition, it is due rather to a combination of the details which by long experiment have been found to produce the best results.

*Ross  
Rifles*

*Look  
Over  
the  
Ross*

## ROSS BARREL CONSTRUCTION LACKS NOTHING

The exterior shape of the barrel by which its whip or movement is controlled; the shape and length of the lead; the shape of the muzzle; the freedom of the barrel from slots; the way it is attached to the stock; the method of rifling the barrel; its smoothness—all these details go to the obtaining of accuracy in a rifle barrel. Any one of them wrong may destroy the ability of the barrel to shoot straight.

Whether or not we have mastered the problem, let our wonderful range record say.

The steel used in Ross Rifle barrels is of the same specification as that used on the United States New Springfield. Nickel is not used, owing to the liability of steel containing it to flaws that cannot be discovered until too late.

Our rifling methods are especially intended to permit the production of barrels that cannot be beaten. We can safely say that no factory gives such careful attention to the turning out of perfect barrels.

## IT IS NOT NECESSARY TO LAP ROSS BARRELS

We have been repeatedly charged with lapping out our .280 barrels after they were rifled, so high is their finish as compared with other arms. The appearance of the barrels in question bears out the suspicion, but the wonderful smoothness and perfect rifling of the tubes are due merely to our careful process of manufacture. No barrels are lapped; we refuse to rifle a barrel to a measurement of a fraction of a thousandth of an inch, and then to scrape out an unknown amount of steel by the use of the emery and lead plug.

Ross barrels are not slotted for the reception of sights or forestock fasteners. It is impossible to obtain accuracy with barrels having slots cut in them nearly to the bore itself.

By our process of manufacture no stresses are set up in the barrels and the minimum of tapping is necessary to put them in perfectly straight condition.

The muzzles of Ross Rifle barrels are left flat, being ground off perfectly true and leaving the lands running up sharp and full size to the very end of the barrel. Machine rest tests have shown the superior accuracy of this method of finishing Ross muzzles.

On a sporting rifle a trifle more care must be taken to protect the muzzle from chance blows, but if the muzzle does come into violent collision with something hard, it will probably be damaged regardless of whether it is of the Ross shape or the ordinary counterbored style.

## THE EXCELLENCE OF ROSS BARRELS FURNISHES US A JUST CAUSE FOR PRIDE

All Ross Rifle barrels made by our factory are accurate. Don't labor under the delusion that the barrels that made our great records were picked ones and not a fair example of the general output of our factory. These barrels were run through the machines and finished before any of them were selected for match shooting and in most of the cases the rifles used in the matches had not been made up for that particular purpose.

An ordinary Ross .280 sporting rifle with our ammunition will be found to give much greater accuracy at all ranges than that given by the best match ammunition in the best of the New Springfields. This is, of course, with our sporting copper tube ammunition. You will shoot the Ross .280 into a six or seven inch circle at 500 yards, for ten shots if you can hold. Attempt to equal this with any other rifle, hunting or target, using a machine rest or any other method of firing the rifle.

Also keep in mind that we do not build rifles as some automobile manufacturers turn out their machines, one sort for the contests and another for the public. Any Ross barrel will give practically the same accuracy as the barrels used in the 1911 Bisley shoot.

We recommend long barrels for satisfaction. We make our Ross .303 in a 22-inch length, but refuse to make the .280 in less than 26 on account of the interference with the ballistics of the arm.



*Ross  
Rifles*



### ROSS MODEL R SPORTING RIFLE

WEIGHT, about 6 lbs., 12 oz.  
LENGTH of barrel, 22, 24 or 26 inches.  
FORESIGHT, Ross Hunting.

REAR SIGHT, Sporting "U" Shaped Adjustable.  
STOCK, Italian Walnut.

CARTRIDGE, .303 British.  
PRICE, \$25.00.

## ROSS STOCKS HAVE KEPT PACE WITH OTHER IMPROVEMENTS

### THE STOCK IS AN IMPORTANT PART OF THE RIFLE

**I**N the appearance of a rifle, as well as in its handling, the stock is the most important feature. A stock hideous in lines or finish can make the finest shooting rifle unattractive to the average man. A stock that is poorly proportioned will usually prejudice the prospective purchaser against a rifle in spite of the many virtues of the arm. A sportsman "takes to" a rifle that swings up like a shotgun and fits him as if made for him.

Probably no machine-made rifle in existence has had the careful attention paid to its stock that the wooden portion of the new Ross Rifle has received.

Earlier models of the Ross, fitted with rather heavy English stocks, did not always suit American sportsmen. Some of them said so with the emphasis peculiar to the cranks of that family.

Therefore the Ross Company had one of the popular builders of American sporting arms of the hand-made sort turn out two different sample stocks along the lines he had found most popular among American riflemen. The Company also sought criticism from other American rifle lovers.

From the opinions gathered and from the two sample stocks the stocks used on the new model Ross Rifle were worked out. We offer them feeling confident that they outclass any rifle stock made for beauty of line, quality of wood and correctness of detail.

### ROSS STOCKS ARE FINISHED FOR SERVICE AS WELL AS APPEARANCE

We do not believe in dipping the stock of a fine rifle in varnish and calling it a job. A well buffed piece of fine walnut, soaked in an oil bath, preserves all the beauty of the wood and improves in appearance with age and hand rubbing, while a varnished stock grows more homely and more marred looking from the day it leaves the makers' hands.

*Look  
Over  
the  
Ross*

## Ross Rifles

The present Ross stocks are built with a very short, full pistol grip, supporting the hand close to the trigger, and giving a feeling of the utmost security in handling the arm. A slight cast-off is used to bring the sights in front of the eye without effort. Pitch a Ross Rifle to your shoulder and try the fit of the stock.

The proportion of the grip, the comb and the butt are carefully worked out to suit the average man as nearly as possible. Shotgun shaped butt plates of graceful form are used, while the grip is full and capped over the end.

The walnut is all of the best selected European stock, not steamed or otherwise treated to make the wood easier to work or to hasten the drying. Some of the wood used is as handsome in figure as that put in the best shotgun stocks and all the walnut is tough and nearly unbreakable.

Standard stocks are furnished with steel butt plates and are without cheek piece. Cheek piece furnished without extra charge.

## COUNTING THE COST

### QUALITY, NOT COST, COUNTS WITH US

**R**OSS Rifles will not appeal to the man who believes that regardless of the merits of two arms the cheaper one is always the better.

The cost of the Ross represents the amount necessary to obtain for a rifle in which our standard of workmanship is present. With a perfect system for turning out machine-made rifles, with one standard action for all of our high power arms whether for the Canadian Army or for the sportsman, the Ross factory is equipped and in position to turn out rifles as perfectly and as cheaply as any plant in the world.

At the same time the Ross standard of quality does not permit the manufacture of the cheapest arms that it is possible to make. Ross rifles are made right, finished right, and are ready to take into the field without further attention,—just as they leave the factory.



ROSS MODEL E-10 SPORTING RIFLE

WEIGHT, about 7 lbs., 4 oz.

LENGTH of barrel, 22, 24, or 26 inches.

FORESIGHT, Ross Bead.

REAR SIGHT, English Standard and

Two-Leaf.

STOCK, Selected Italian Walnut.

CARTRIDGE, .303 British.

PRICE, \$35.00.

Look  
Over  
the  
Ross

## EVERYTHING THAT WILL MAKE A ROSS BETTER IS DONE

All friction parts are polished, adjustment of the working parts is not excelled by any factory in the world, the pull is perfect and the rifle is fit to show to your most critical rifle-crank friend. The stocks are made of imported European walnut, oil-finished and hand checked.

The Ross is a rifle made ready for you to use, regardless of how finicky you are about your guns.

Yet the price is within reach of everyone. The Ross costs less than the widely advertised English repeating rifles made up of stock Mauser actions, using destructive powder and having inferior ballistics.

The Ross is not made to compete with the cheapest guns possible to make. It is made to compete with the BEST ones possible to make.

You must acknowledge that a long-planned-for hunting trip converted into a disappointment through the failure of a fifteen dollar gun is a poor investment.

## ROSS AMMUNITION AND BALLISTICS

**R**OSS rifles are made for the Ross .280 cartridge, the superlative merits of which are now universally recognized. The .303 of the British Service type is retained simply because the British Government has not yet departed from that model of cartridge. In detail these cartridges may be described as follows:

### THE ROSS .280

The Ross .280 with 146 grain copper tube collapsing bullet for game, the most deadly game cartridge ever known, outside of those used in large bore elephant rifles. The Ross .280 with match bullet, especially adapted to long range target shooting, undoubtedly the most accurate cartridge yet designed.

### THE ROSS .303

The Ross .303 British caliber cartridge, using the old 215 grain blunt point, full or half metal patched. Velocity, 2,000 ft. secs. Also the new British Mark VII cartridge, using 174 grain pointed bullet, velocity 2,400 ft. secs. The Ross .303 Match cartridge, with 200 grain pointed bullet, velocity 2,400 ft. secs.

Aid Your Aim With Ross Ammunition.

## THE WONDERFUL ROSS .280 CARTRIDGE

### DETAILS OF THE ROSS .280

**T**HIS cartridge is so plainly superior to any other now in use that it deserves and must receive special recognition in a chapter exclusively devoted to its qualities and performances.

There are a number of good cartridges on the market but there is only one Ross .280.

So far does this cartridge stand above all others at present made that we can say without fear of any contradiction that it is the finest cartridge yet devised.

*Ross  
Rifles*



Ross  
Copper Tube  
Bullet  
Deadly as  
Dynamite

*Look  
Over  
the  
Ross*



## Ross Rifles

It is the most accurate ever made—but it is not the best merely on account of its superior accuracy.

It has the flattest trajectory of any cartridge—but this is not the only reason why it is the best cartridge made.

In its match form it is about half as sensitive to wind as any American cartridge made up to the spring of 1912—but we've still other reasons for our claim of absolute superiority.

With the Copper Tube Bullet, designed and patented by this Company, the .280 is the most effective game shooting cartridge ever used. This has been demonstrated from America to Australia, and on game ranging from goats to elephants.

The cartridge is less destructive to the rifle than any cartridge of anywhere near its power.

It is only after we add up all these details of superiority and look at the result that we make our claim.

The Ross .280 is superior in accuracy, in trajectory, in "wind-jamming," in killing effect, in freedom from erosive effects, and in strength of case; therefore the best cartridge.

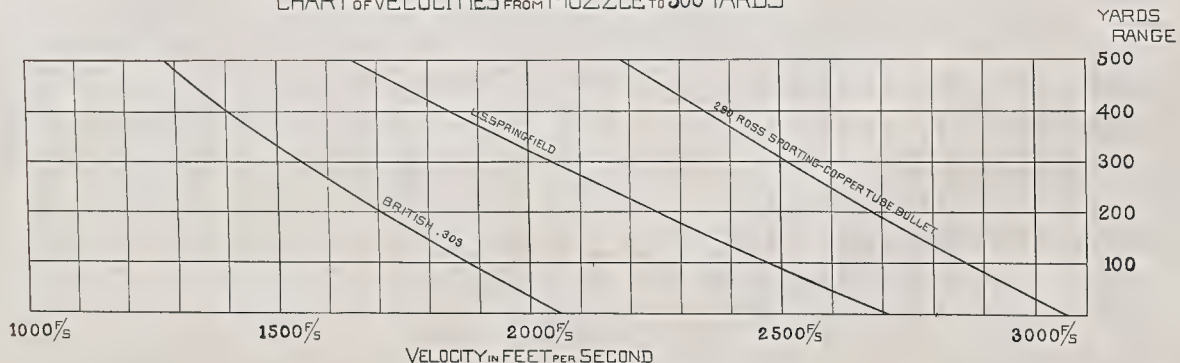
### LET'S TEAR THE ROSS .280 CARTRIDGE APART

Go into the details of the .280 cartridge and see how closely they come to your ideal for a game shooting or target rifle.

First, there is the velocity of 3,100 ft. secs. in the game shooting cartridge. Second, the point is sharper than any used at present, technically known as a nine caliber radius. Third, the bullet is so heavy in proportion to its diameter that it retains at all distances a far larger proportion of its original speed than any other bullet except our match bullet.

These three things, not any one of them, go to make up the wonderfully flat trajectory of the Ross .280 bullet. When you read or are told of the velocity of such and such a cartridge, don't jump at the conclusion that it would be entirely satisfactory, even over game ranges. See what the point is like and how the weight compares with the weight of the Ross .280 for its caliber.

### CHART OF VELOCITIES FROM MUZZLE TO 500 YARDS



Look  
Over  
the  
Ross

## OTHERS HAVE NOTIONS BUT NOT THE ROSS .280

Since the advent of the Ross .280 four years ago, high speed cartridges in a veritable flood have come rushing over the rifle horizon. Some of them gave the velocity claimed, some of them didn't come within 200 feet a second of doing it. All of them that anywhere near approximated Ross velocity, did so by means of a bullet ridiculously light, or by means of nitro-glycerine powder, sometimes by both. In one case the bullet would fall off like a feather, in the other the terrific erosive effect of the powder used would ruin the rifle very shortly.

We have no monopoly on velocity, have no secret discovery in German powders, nothing that the other makers cannot get except—and mark this—a case that will hold enough pyro-cellulose powder to give the velocities we require, and a rifle that will stand the heavy backthrust of this big case. It is simple enough to imitate the Ross .280 case; it is being imitated steadily. It is another thing to get a repeating rifle to stand the backward push of the big shell driven by a large charge of pyro-powder. This is why the Ross .280 stands alone and bids fair to continue its lonesome state for some years to come.

Remember, velocity with powder that will not destroy the barrel and with a bullet the correct weight to hold its proper proportion of speed, depends merely upon the powder that is put behind it. Enough powder, enough velocity.

Therefore, if you find a veritable Ross .280 cartridge developed out of an old 8 or 7 or 6.5 mm. case, look for the Ethiopian in the wood pile. His name will be nitro-glycerine powder, deficient weight of bullet, or just plain prevaricator.

## ROSS .280 ALONGSIDE OF THESE IS INTERESTING

Here's a little table for you, showing the weight of the various bullets to correspond with the proportionate weight of the Ross .280. If any of these give Ross velocity with pyro powder and have the Ross point, then they will fly through the same flat trajectory as the Ross .280 and will be the equal of the Ross IN THIS ONE RESPECT. If they fall short in weight or have blunt points as compared with the Ross, then they fall below Ross standard of trajectory, the amount of said fall depending on how far below the bullet is in weight and shape of Ross weight, 146 grains for game.

### CORRESPONDING BULLETS MUST WEIGH

8-mm.	213 grains
7-mm.	146 grains
6.5-mm.	135 grains
.30 cal.	200 grains

With a bullet corresponding to a weight of 150 grains in the 8 m.m. rifle the Ross develops experimentally 3,600 ft. secs. with its present working pressure. With this weight of bullet in the .30 calibre the Ross develops experimentally 3,440 ft. secs., and keeps its own weight proportionate. With a bullet of 135 grains, furnished by some makers for 7 m.m. rifles, the same caliber as the Ross .280, the Ross gets 3,230 ft. secs.

## OUR OWN AMMUNITION IS ALL WE GUARANTEE

And, while on the subject, we desire to say that we guarantee Ross rifles for accuracy and life of barrel and general satisfaction only with ammunition loaded by us or bearing our endorsement. We are compelled to take this step by the number of poor imitations of the Ross cartridge now for sale, loaded with nitro-glycerine powders and light, inferior bullets. You use these at your own risk. Ross ammunition for the .280 rifle is labeled "Ross .280," and costs \$7.50 per hundred.

*Ross  
Rifles*

*Look  
Over  
the  
Ross*

## Ross Rifles

### THE ROSS .280 FLAT TRAJECTORY IS STARTLING

The high velocity of the Ross .280, its sharp point and its weight give it the flattest trajectory of any cartridge made. You may not appreciate the full importance of this. The man who has travelled a thousand miles for a shot and then put the bullet over the back or under the belly of the quarry because he misjudged the distance, can tell you with the proper emphasis, just how important a "flat shooting" rifle is to you.

The flat trajectory of a rifle—the flat path followed by the bullet—depends merely upon the amount of time required by the bullet to reach its mark. The less time required the less chance gravity has to drag it down and the less the muzzle has to be elevated to overcome this effect. All bullets, as you know, have to rise a bit above the straight line from your rifle to the mark, merely because of this dragging effect of gravity.

### WONDER HOW THE ROSS .280 COMPARES WITH THESE

Let's make some comparisons, they will help us understand:

The well known .30-40 bullet, or its twin, the .303 British, at 300 yards has to rise about **FOURTEEN INCHES** higher than the line from your sights to the mark because it travels slowly and has to rise high to keep from being dragged down below the mark.

The Ross .280, on the other hand, gets there in the wink of an eye, gravity hardly gets one fair clutch at the bullet, and it has to rise but **THREE AND A HALF INCHES** as compared with fourteen inches for the .30-40.

Let us see how this works out in real life, apart from white paper and printer's ink.

A buck, for which you have travelled many miles by train and seemingly more miles on foot, stands across a canyon, unconscious of your presence. You need that buck, he's the only one you've seen and tomorrow you go home.

He looks small, about half again as large as a Norway rat. At first glance you settle on 500 yards as a reasonable estimate. Then you revise on the low side, stopping with 300 yards as about the proper distance. You set your sights for 300 yards, sit down, breathe a moment, put the sights on the buck and press the trigger.

A spurt of dust above and beyond him tells you all the story; that fine deer which should have been yours vanishes like a ghost. You return campwards, with Old Man Gloom perched upon your shoulder and bent on keeping you company all the way home and beyond.

### THAT BUCK WAS CLOSER THAN YOU THOUGHT

The buck really stood less than 200 yards away and the old .30-40 drove the bullet just over his back. The bullet was nearly fourteen inches higher than your point of aim when it got to the deer.

The Ross .280 would have slammed the buck against the side of the hill, in spite of your error in judgment. The Ross .280 bullet would have struck the buck, at the most, three and a half inches above the point where the front bead of your rifle was sighted against his broad body.

This is the way a flat trajectory works out in hunting. And while many deer are shot under 100 yards, there are also many chances for a record where the range is 300 or more. The man who can infallibly judge distance over 200 yards has not yet appeared.

The Ross .280, in comparison with cartridges of the .30-30 and .30-40 class, shoots just as flat over about 400 yards as the other cartridges do over 200.

Look  
Over  
the  
Ross

### THE ROSS .280 TRAJECTORY OVER GAME RANGES

200 yards	..... 1 inch
300 yards	..... 3.5 inches
400 yards	..... 8.0 inches
500 yards	..... 14.0 inches



Within the Width of Your Hand

## ROSS .280 FALLS LITTLE, THEREFORE HAS TO RISE LITTLE

Hold out your hand, palm toward you, fingers closed. The distance ACROSS the roots of your fingers is the height of the Ross .280 bullet above the line of sight when shooting at a mark 300 yards away—three and a half inches.

Now stand in front of a mirror for a moment. The distance ACROSS your chest about the armpits is the height of bullets of the .30-30, .30-40, .33 and .35 auto-loader class when shooting into a mark 300 yards away—14 to 17 inches.

## AND ABOUT THE DISTANCE FROM BACK TO BELLY OF A SMALL DEER

It's the difference between hitting and missing if your judgment of distance is not a trained one.

The point-blank range of a rifle is a flexible term and depends for its value on the height you are willing to allow your bullet to rise on its way over this point-blank range. Technically, there's no such thing. Practically, it means the shortest range for which your rifle should be sighted.

If you are a soldier and don't want your Ross .280 bullet to travel higher at any point than a man on horseback, then sight it for 1,000 yards. This is one sort of point blank.

If you are a game shot and don't want your bullet to rise or fall out of a 3½ inch bullseye at point blank, then sight your Ross .280 for 300 yards. For all round shooting in open or mountainous country, probably a four to five inch mid-range height will be found satisfactory, which means on the Ross .280, a range of around 400 yards, over which the bullet does not climb out of the five inch limit.

## MIGHT MEASURE ELEVATIONS ON YOUR FRONT SIGHT

Changes of elevation on Ross .280 rifles over game ranges are microscopical. Do you realize that the changes in elevation for the Ross .280 from 100 to 500 yards can be contained in the small, ONE-SIXTEENTH INCH Sheard or ivory front sight bead?

At the lowest position in the notch the bullet will strike where the bead touches at 300 yards and practically all distances below that. The changes in the relation between the front and the rear sight, or the distance to be allowed for on account of the space between the object to be hit and yourself are so small as to be beyond computation.

With the bead pulled a trifle higher, it puts the bullet to the mark at 400 and with the bead pulled clear into sight, the bullet goes to center at 500 yards.

Yet this is all done with the one-sixteenth inch front sight ivory or gold bead, familiar to every user of a hunting rifle. Try your own rifle and realize how slight these changes really are.

You can sight your Ross .280 to strike into a bear's eye at any range where you can see closely enough to hit him, and yet when you want to shoot 400 yards, you only pull your entire bead into view. But practically these changes are not necessary, because the Ross .280 shoots at these ranges closer than most men can see or hold. If you feel you must make an allowance use your normal sight and hold a little higher or lower.

## THE PENETRATION OF THE ROSS .280 DOES NOT DISAPPOINT

The Ross .280, with solid, sharp point bullet, drives 80 inches through the best white Canadian pine. Through the regular grade of machine steel we use in our rifles, the bullet tears from ¾ to ¾ inch. Compare by shooting with the penetration of guns that are advertised to shoot through steel.

With the copper tube bullet, the penetration in wood is comparatively slight, under 12 inches. This means that the bullet so thoroughly breaks up that its full energy is delivered in the body of almost any animal from deer up.

*Ross  
Rifles*

*Look  
Over  
the  
Ross*



## Ross Rifles

### ENERGY CONVERTED INTO SHOCK IS ROSS .280 DOCTRINE

At the muzzle the Ross with game bullet delivers a blow of about 3,150 ft. lbs., approximately that of the .405, the most powerful arm made in the United States.

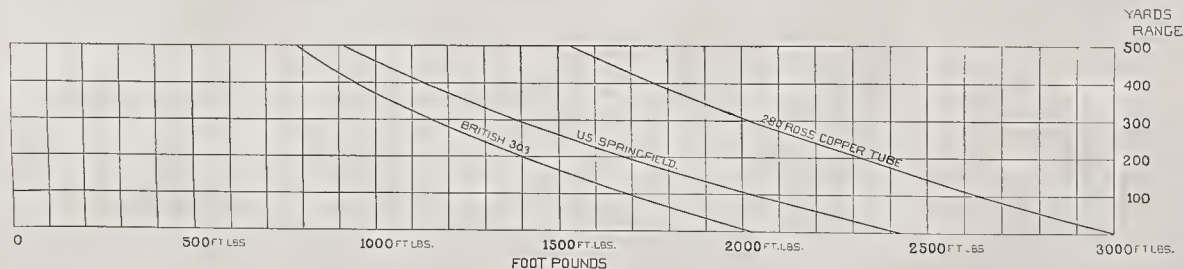
At 100 yards the .405 rifle, due to the poor shape of its bullet and the lack of sectional density, falls badly below the Ross, 2,400 ft. lbs. for the .405 to 2,750 ft. lbs. for the Ross, while at 200 and over it is entirely outclassed, the figures being 1,700 lbs. to 2,325. Thus at game shooting ranges the Ross .280 far outclasses in mere striking energy any rifle made in the United States. Not until we get into the most powerful express rifles of English or Continental make, designed for stopping the biggest of the pachyderms, do we find a rifle that delivers the shock of the Ross .280.

Do not deceive yourself with the weak arguments of the men who believe or pretend to believe that Ross small bore rifles with Ross bullets do not deliver their full shock or that they fall below low velocity, big-bore arms, with short, broad bullet, in striking effect.

The caliber of the bullet as it leaves the barrel of a rifle matters not one whit. What DOES matter is the form the bullet assumes on striking the game, and whether it delivers its full energy in the animal's body. This is merely a matter of a bullet that will without fail break up at the proper moment and in the Copper Tube we have such a missile.

For the striking energy of the Ross .280, at various ranges, examine the energy chart printed here. The real energies are slightly over this on account of the muzzle energy being plotted as but 3,000 instead of 3,150.

CHART OF STRIKING ENERGIES FROM MUZZLE TO 500 YARDS



### THE ACCURACY OF THE .280 SEEMS ALMOST TOO GOOD TO BE TRUE

There is but one standard of accuracy for our game shooting and our match cartridges. The difference is merely in bullet design and weight. The Copper Tube cartridge built for game shooting will outshoot at 1,000 yards any cartridge made up to the spring of 1912. Groups at 500 yards average under six inches vertically from outside to outside shot for ten shots. Try to make this at 200 yards with the best rifle you own, using soft point "game shooting" cartridges. This game shooting cartridge for the Ross .280 will far outshoot the best of the match ammunition for the New Springfield. This is not our opinion, not guess-work, but the result of dozens of comparative trials of the two rifles and two sorts of ammunition from machine rest.

Look  
Over  
the  
Ross

The Ross .280 was accurate enough in 1911 to win everything in sight in the great English long range matches at Bisley. Our accuracy now is about double that of 1911, in which the test of the rifleman winning these 1911 matches agrees with ours.

We invite competitive tests for accuracy between the Ross .280, either game or match, and any other ammunition made.

To carry home to your mind just what we mean by Ross accuracy, we give a few concrete examples of Ross shooting at long range.

At 1,100 yards the Ross .280 rifle and ammunition shoot groups of fifteen shots into a circle from sixteen to eighteen inches across.

At 500 yards an ordinary Ross sporting rifle has repeatedly put ten shots into the four inch circle. You can make nearly any Ross .280 keep its shots into a postcard size rectangle over 500 yards.

At 200 yards the groups run  $1\frac{1}{2}$  inches as the outside measurement for ten shots. Try this against the work of the finest Schuetzen arm.

The Ross using the .303 ordinary British cartridge proved so accurate at Bisley that a rule was passed forbidding the use of the rifle by any save Canadian rifle team members, thus saving for a time the total disappearance of the Lee-Enfield from the Bisley range.

The reproductions of actual targets elsewhere in this book show the accuracy of the Ross .280 at 500 and 1000 yards.

### ROSS .280 COPPER TUBE GAME CARTRIDGE

Ross .280 cartridges in common use are of two classes, one the match cartridge furnished with 180 grain bullet and a velocity of 2,800, the other, the Ross Copper Tube game shooting cartridge, using 146 grain bullet and having 3,100 foot seconds velocity.

No missile anywhere near its weight fired from a shoulder arm has so fearful an effect on game as this copper tube bullet at Ross velocities. The striking energy of the Ross is terrific, and by the use of the sharp point, copper tube bullet, the shock is all delivered in the body of the game, not against nearby scenery. You can kill game and kill it "dead" at longer range with the Ross .280 copper tube than with any rifle made.

Briefly, the copper tube bullet is a sharp point missile with a soft copper tube set into it to cause it to break up.

The forward quarter-inch of the bullet is composed of a thin copper tube running well back into the bullet core and containing air. The outside is shaped to conform with the curve of the bullet. The bullet looks as if the tip had been dipped into copper paint. The tube extends back about a quarter of an inch into the bullet core.

The walls of the tube are heavy enough to prevent the tube from being bent or deformed by ordinary usage, yet soft enough to make it break after entering game. The bow of the bullet has very sharp lines, and all the advantages of the sharp point military bullet are retained in this one.

When the bullet strikes, the tube collapses, the air within is compressed and assists in bursting the bullet. The effect is literally an explosion. Examination of game hit with the bullet proves this. The pieces of the core and jacket continue on through the body, driven by the high velocity of the bullet as it struck the animal, and inflict fearful lacerations.

The shock to the animal is terrific. It usually drops as if pole-axed. Rarely does an animal, hit squarely anywhere with the Ross .280 copper tube, ever keep its feet.

### PLENTY OF PENETRATION TRANSLATED INTO KILLING EFFECT

There is not the lack of complete penetration that at first thought might appear probable. A bear shot squarely through the body on examination showed the bits of the bullet to have penetrated nearly to the hide on the opposite side. The terrific energy of the bullet itself explains some of this great penetration of a projectile that after entry is converted into bits of flying lead and nickel jacket.

No ordinary soft point bullet can compare with the Ross copper tube in the uniform effect produced and in the sureness with which it delivers its full energy in the body of the animal hit. Your own tests would speedily convince you of this. If you hit an animal squarely, practically

## Ross Rifles

anywhere in the body, it is yours. The proportion of wounded game would be reduced to a very low point were the Ross copper tube bullet used entirely.

The biggest and meanest bear in American hunting ground quits when struck by the Ross ton and a half blow. The copper tube bullet has killed big game of all sorts from lions down and there has been but one sort of report—it outclasses anything else in the rifle line save the most powerful, express, elephant guns.

### THE ROSS .280 MATCH CARTRIDGE IS A GEM

This cartridge is worked out to give the highest possible accuracy, coupled with the least possible sensitiveness to wind.

Practice has proved that the heavier bullet at less velocity is less sensitive to wind than the lighter bullet driven at several hundred foot seconds greater speed. In both cases the chamber pressures are kept to the standard limit.

Therefore, with our chamber pressures the same with either 146 grain bullet at 3,100 ft. secs. or the 180 grain bullet at 2,800 ft. secs., we have settled upon the use of the heavier, slower bullet for long range shooting. The elevations required for both bullets are about the same over 1,000 yards, while the heavy bullet "wind jams" better than any other at present obtainable.

A wind of a given strength affects the Ross match bullet in 1,000 yards, about one-fourth as much as it does the .30-40 Krag bullet and about one half as much as it does the New Springfield 1906 bullet.

The happy condition that is the portion of the man using such a cartridge can be appreciated only by one who has lain hours at a time trying to gauge the strength of playful zephyrs that threaten to blow his teammates' bullets clear off of the target.

The great record of Mr. Maurice Blood at Bisley in 1911, against fast company, is an example of Ross superiority.

Mr. Blood is a magnificent rifle shot, one of the best, if not the best in England. Yet his superiority to the men shooting against him is not so marked as to account for his walk away with his great armful of prizes under the varying conditions of all the matches in which he was entered. Just recollect that Blood, shooting in fifteen great matches against the best of the English shots, made top score in nine of them, landed second in two more, got third in one, and was ninth in one, all at ranges from 900 to 1,100 yards.

His sweep was never equalled nor approached in all the history of the English Bisley matches.

### THE SOLID SHARP POINT BULLET NOT SURE

We do not advise the use of the solid sharp point bullet on big game. Our experience, backed by that of hundreds of European sportsmen, is that there is no inherent killing virtue in the sharp point bullet and the only way this missile kills is by turning sideways on impact.

A properly balanced sharp point bullet will usually not turn on impact, while the bullets that do turn are not balanced and are not, therefore, as accurate. The spitzer bullet cannot be relied upon to kill surely. To prevent the escape of many head of wounded game, and for the sake of saving the sportsman many a long chase after escaping punctured animals, we urge the use of an efficient game bullet, one that kills not SOMETIMES, not once in a while, but **WHENEVER IT STRIKES THE GAME FAIRLY, WHENEVER A BULLET COULD BE EXPECTED TO KILL.**

Ross principles in ammunition making apply regardless of the rifle in which it is used. We can get higher accuracy and lower pressures out of barrels made according to our ideas, but our ammunition improves the accuracy of nearly any arm we take in hand.

Aid your Aim with Ross Ammunition.



Ross  
Hollow Point  
Good, but does  
not equal  
copper  
tube

Look  
Over  
the  
Ross

*Ross  
Rifles*

## ROSS STRAIGHT PULL RIFLE PROOF

### TO PROVE A ROSS RIFLE, SHOOT IT

**T**HE proof of the pudding is in the eating, and the proof of a rifle is in its shooting. The next best thing is to go into the details of the arm, its proven performances and the opinion of others regarding the arm. When you get your Ross, as you eventually will, you'll find that our statements are not over-drawn.

Our rifle will shoot through steel and more of it than any rifle made, but we do not try to sell you the gun on the strength of this.

Our rifle having more striking energy at 100 yards than any rifle in America, is big enough for the biggest game to be found in America—and for most of it to be found in other countries, but we do not recommend it for use on elephants, buffalo and rhinoceri.

Our rifle hits like the heavy club of Hercules. In cold figures the Ross hits like a hammer of a ton and a half, dropping a distance of a foot, which you must admit, is slightly more weighty than even the best of the legendary hammers. Still we are not satisfied to rest our case on this trip-hammer record alone. You want to know whether you can always deliver this hammer blow just where you want it and whether the bullet that is going to play the hammer part is likely to curve high enough in its flight to miss the entire anvil.

### ROSS SYSTEM OF OPERATION

At the risk of being tiresome, we must offer you a detailed description of the mechanism of our rifles. They differ so radically from any others and they are so great an improvement upon others, that unless you are thoroughly familiar with the Ross from personal use we recommend the close reading of this section of the Ross book.

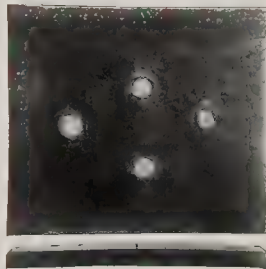
The Ross rifle is a true straight-pull arm. The bolt is opened and closed by a simple pull to the rear and thrust forward. The bolt handle does not describe part of a circle, lifting the bolt locking shoulder out of a locking recess.

Due to the lack of any other motion than a straight backward and forward snap of the hand when operating the bolt, the rifle is the fastest of any hand operated arm. This has been proven repeatedly. No modern high power arm, using cartridges of the .303 British or of the .280 class, can touch a Ross in the speed with which it can be shot.

### DETAILS OF THE MECHANISM

The Ross mechanism consists of a bolt, magazine and trigger and sear parts. The bolt and magazine can be removed from the Ross Model of 1910 in five seconds, and replaced nearly as quickly.

Ross bolts are not made to be taken down easily. Our experience has shown us that much more harm than good comes from making a bolt which can be quickly resolved into its original parts. It is sufficiently easy to disassemble a Ross bolt if circumstances require it, but you cannot do it with a twist of the wrist. We have made it so on purpose.



Through Steel

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Over  
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Ross*

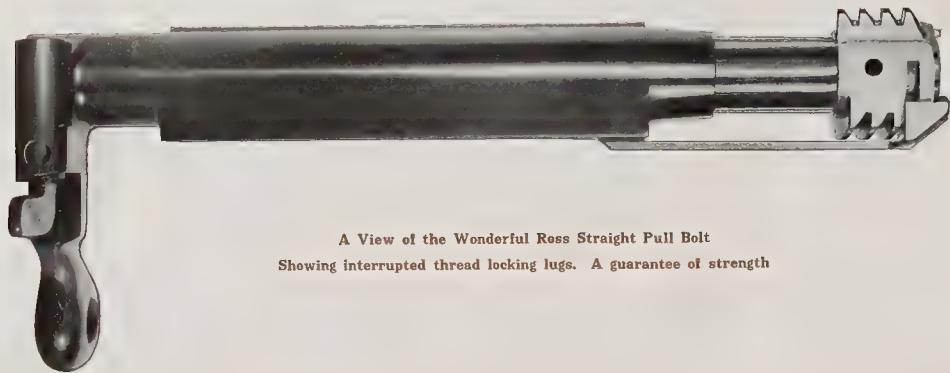


*Ross  
Rifles*

**THE ROSS BOLT IS A REAL BREECH CLOSING DEVICE**

In the Ross Model of 1910 bolt, adopted by the Canadians for their new rifle in the expectation of a change on the part of the English War Office in the Army cartridge, is found the strongest breech-closing device of any repeating rifle yet devised. The Ross bolt will stand for thousands of rounds a working pressure that would either set back the lugs of the best type of modern military bolt action rifle until it was unusable, or which would entirely wreck the rifle if the lugs were hard enough to resist upsettage.

The Ross bolt consists of two distinct portions, the bolt itself and the bolt sleeve, carrying the bolt handle and the safety bolt.



**A View of the Wonderful Ross Straight Pull Bolt**  
Showing interrupted thread locking lugs. A guarantee of strength

The bolt is a hollow steel cylinder, about  $4\frac{1}{2}$  inches long. At its forward end are the combined interrupted screw threads and locking lugs that lock the bolt against the backward thrust of the explosion. This bolt locking system of the Model 1910 Ross was evolved from the .280 bolt used on thousands of sporting and match .280 rifles and it is the strongest possible form of breech closing mechanism for a magazine arm.

**ROSS LOCKING LUGS CARRY INTERRUPTED THREADS**

On the bolt head are the two locking lugs, similar to those used on the New Springfield, but considerably larger in area. These lugs are 3-16 inch deep—from the top of the lug down to the bolt. Into the lugs are cut portions of an interrupted thread, 3-32 inch deep. The bottom lug, when the bolt is in its locked position, has three cuts in it, making four segments of the thread to lock into the receiver. The opposite lug has two cuts, making three of the thread segments.

In the receiver walls are cut corresponding sections of threads into which these bolt head sections lock firmly when the bolt is revolved.

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Ross*

The main locking shoulders of the lugs turn down against shoulders in the receiver, forming an additional lock similar to the ordinary system of bolt locking.

The Ross bolt is thus a combination of the interrupted thread system used on heavy ordnance, and the locking lugs of the usual plan.

It is practically impossible to blow a Ross bolt open without tearing out the entire receiver. A moment's inspection of a Ross or of the drawings will show you this.

Along the rear three inches of the bolt spindle are cut two helicoid ribs, terminating at the rear end in sections of an interrupted screw. These ribs, working in the corresponding grooves in the bolt sleeve, form the means by which the Ross bolt is revolved.

Between the two locking lugs of the Ross bolt is cut a gas escape hole, through which gas may escape in case of a punctured primer.

The bolt sleeve is a hollow cylinder carrying the extractor, the bolt handle at its rear end and the safety bolt. It is about  $5\frac{1}{4}$  inches long. Along either side run the guide grooves which engage ribs in the receiver and make the sleeve run perfectly true and smooth. These ribs prevent the sleeve from turning.

### SPIRAL GROOVES INSIDE THE BOLT SLEEVE GIVE THE MOTION

Inside the sleeve works the bolt proper, the spiral—helicoid—ribs on the bolt spindle engaging in corresponding grooves on the inside of the sleeve.

When the sleeve, carrying the bolt, is pushed forward until forward motion of the bolt is stopped by the head of the receiver, the sleeve continues forward and its grooves, acting on the ribs on the bolt, compel the bolt to revolve, engaging the locking lugs into their corresponding cuts in the receiver.

Thus a straight back and forward motion of the bolt sleeve causes the bolt to revolve into or out of its engagement with the locking threads in the receiver.

A familiar application of this system is the spiral screwdriver, in which a push forward on the handle compels the blade of the tool to turn, driving in or turning out the screw.

The bolt sleeve moves about an inch to the rear while the bolt is being turned out of its engagement with the receiver. Then the threads on the rear end of the driving ribs of the bolt engage with corresponding threads in the bolt sleeve, preventing the pressure of the now compressed main spring from turning the bolt. The bolt and sleeve are drawn together to the rear, carrying the empty cartridge with them until it is ejected.

### FIRING PRESSURE ON A ROSS BOLT LOCKS IT MORE SECURELY

There is absolutely no tendency for pressure on the bolt head to unlock the bolt. It is a mechanical impossibility for the bolt to unlock while the thrust of the explosion in the chamber is on the bolt head; the friction of the lugs and the threads of the bolt against the recesses of the receiver being so great that a powerful wrench could not turn the bolt during the strain. An additional safeguard is furnished by the form of the bolt sleeve which precludes the possibility of the bolt turning. The instant the thrust is off the bolt, it may be unlocked freely and the bolt works so easily as to almost give the impression that it could not be safe.

The only way to unlock the bolt is to pull back on the sleeve. The pressure of the explosion is NOT on the sleeve, but on the bolt head, while the rifle recoiling suddenly backward, has the same effect as if the bolt sleeve were suddenly driven forward, tending still more to keep the bolt securely locked. There is no safer closing mechanism in the world than this Ross 1910 rifle action, and at the same time no easier working one.

A Ross .280 rifle, using mechanism not quite so strong as that of the new 1910 action now used on all Ross rifles, has never been blown open in spite of its high chamber pressure and the rough treatment the various rifles have received in the different parts of the world to which they have been carried.

*Ross  
Rifles*

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## Ross Rifles

### YOU HAVE TO PULL THE TRIGGER TO DISCHARGE A ROSS RIFLE

The firing pin and main spring work inside the bolt proper, the rear end of the firing pin terminating in the cocking piece which slides in a slot cut in the bolt sleeve. When the sleeve is drawn to the rear, the rifle being uncocked, the cocking piece is pulled back with the sleeve, compressing the main spring. When the bolt turns far enough to allow the interrupted threads on the bolt and inside of sleeve to engage, the bolt and sleeve lock together in the open position and the main spring is held compressed until the bolt is fully closed, when the cocking piece is engaged by the sear. The rifle can never be discharged by pulling the trigger or otherwise, until the bolt is fully locked.

The extractor engages in a deep groove in the bolt head, the tail running back in a slot in the bolt sleeve. It is somewhat similar to the New Springfield form in appearance, but is on a different principle and it is far stronger than any other extractor made at the present time. It is an improvement on former Ross designs and it will not slip off the head of the shell, regardless of the pull applied. It is so designed that the harder the pull the more firmly it engages the shell. Its hook is so wide that there is no danger of its cutting through the rim of the shell. The only way to make it balk is by the shell head parting company with the remainder of the case.

The Ross bolt is halted in its rearward progress by the bolt stop, a modification of the New Springfield combined bolt stop and cut-off, now the standard on the Canadian Army rifle, Model of 1910.



**ROSS .303 MILITARY TARGET RIFLE MARK II\***

WEIGHT, about 8 lbs.  
LENGTH of barrel, 30½ in.  
FORESIGHT, Adjustable.

REAR SIGHT, Military.  
STOCK, Good Quality Walnut.  
CARTRIDGE, .303 British.

PRICE, \$40.00.

New Barrels can be furnished for this rifle at short notice. New barrels put in, and sighted correctly, \$17.50.

### THERE IS NO CUT-OFF ON ROSS SPORTING RIFLES

Ross sporting rifles are not made with a cut-off. We regard a cut-off as a dangerous thing in a sporting magazine rifle and one that might quite easily result fatally when facing dangerous game, or involve the loss of a fine trophy. A rifle with a magazine cut-off always leaves room for doubt as to its condition in case of a hasty second shot. One with the magazine constantly in operation, always feeds up the cartridge for the second shot and you are not losing needed second shots because you had your cartridges nicely cut-off.

The bolt stop is normally turned down against the receiver. To take out the bolt, turn up the stop half way, or to a horizontal position, when the stop lug clears the shoulder on the bolt rib.

The magazine is of the well known staggered double column type, using a double leaf spring and follower, and it is, except in the .303 rifle, contained within the lines of the stock. The .303 magazine, being designed for charger loading with rim cartridges, has to be made of the single column type and it protrudes from the stock to about the bottom of the trigger guard.

Look  
Over  
the  
Ross

## THE ROSS .280 MAGAZINE CARRIES FOUR CARTRIDGES—THAT'S ENOUGH

The magazine of the Ross .280 contains but four cartridges, which with one in the chamber, gives five shots. The larger size of the .280 case makes the rifle, from a sportsman's point of view, a trifle bulky at the magazine if made for five cartridges. The terrific shocking power of the .280 rarely makes a second shot necessary and sportsmen have found by practical experience that two cartridges of the .280 class will usually stop anything that should be taken on with anything short of an elephant rifle.

## COMPLETE SAFETY AND QUICK ACTION ARE ROSS QUALITIES

The safety bolt is set just above the bolt handle. This is a little steel bolt, about an inch long, working at right angles to the long axis of the bolt sleeve. It has a thumb piece with the words "Safe," and "Ready," engraved on it. The rifle can be changed noiselessly from "Safe" to "Ready" without removing the hand from the bolt handle after closing the rifle.

When the thumb piece is turned over, a cam cut in the safety bolt engages in a cam in the top of the cocking piece, driving back the cocking piece from engagement with the sear and making the rifle absolutely safe. At the same time the safety bolt, through its thread, moves slightly across the bolt sleeve, its end engaging in a cut in the receiver wall and locking the bolt sleeve against any motion. The rifle can be locked, either cocked or uncocked, against firing or opening.

There is no fumbling with a hammer that may slip from under the thumb in cold or wet weather and the action is locked rigidly against accidental opening through a fall or by brush catching in the mechanism. This is far from being true with many types of rifles. The Ross, with the safety bolt turned to "Safe," cannot be fired from a fall or from an accidental blow on the cocking piece. Let the long list of accidents with hammer rifles say whether or not this is a point worthy of note. The Ross Rifle does not lock the sear and call the arm locked, it interferes with and blocks the portion that moves forward and strikes the cartridge.

Ross trigger pulls are all light and uniform through correct mechanical principles, not by reason of any attention that may be given the arm during the finishing.

We use the two-pull or double-draw system, common to all bolt rifles not using set triggers. Sportsmen getting accustomed to this form of a pull refuse to use any other if they can avoid it.

This sort of a pull allows the trigger to move back a short distance, against the resistance of the sear spring. Then the movement stops and if the pressure be slightly increased, usually to about three pounds, the rifle is fired without further apparent movement of the trigger.

## THE TRIGGER PULL OF THE ROSS IS EXCEPTIONALLY GOOD

This is not a creep, as called by many people unacquainted with the principle involved. The first motion of the trigger partly withdraws the sear from the nose of the cocking piece, leaving but a slight engaging surface. Then the leverage of the trigger is altered owing to its form of construction, and farther movement relieves the sear entirely from its engagement with the cocking nose. This last motion is entirely smooth and short and feels like the most finely adjusted form of fixed pull. By this construction a large amount of engagement may be obtained between the sear and the cocking piece and yet the firing pull may be kept as light and smooth as desired.

The sportsman will find this form of pull far superior to the ordinary fixed pull. The first movement of the trigger acts as a positive index of the force being applied when the fingers are numb from the cold, while with a fixed pull one cannot always tell just when the trigger will respond and the report may come as a disagreeable surprise.

This sort of pull is common to all bolt action rifles, but with Ross construction all pulls are light and uniform beyond the limits of any ordinary machine construction.

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## Ross Rifles

In the bracket is pivoted a hard steel roller, lying across the path of the cocking nose. When the rifle is cocked, this roller pushes the cocking nose upward to the limit of any up and down travel it may have in the bolt sleeve. Thus the relation between the sear and the cocking nose is always the same and the pull must be uniform. The sear is cut by accurate machinery on the arc of a circle and literally rolls out from before the cocking nose.

Ross pulls are as smooth and free from grate and rough drag as if they had received the most careful hand finishing, but no hand finish could produce the even run of work that our system of manufacture does.

### A ROSS CAN BE FIRED ONLY WHEN THE BOLT IS LOCKED IN PLACE

Like all well conducted rifles, the Ross cannot be fired until it is entirely locked. In the Ross this is merely due to the fact that if the bolt sleeve is pulled back enough even to start the locking lugs from their seats, the cocking nose will strike the end of the slot in which it works, and the main spring will merely push home the sleeve instead of firing the rifle.

In operation the Ross bolt requires merely a brisk pull to the rear, applied to the bolt handle. This does not mean a hard pull, it takes little effort; but a quick motion is essential to get the best and easiest working of the bolt. The momentum of the sleeve unlocks the bolt from its receiver cuts, and compresses the main spring.

The cut of the locking lugs at a pitch of about three turns to the inch, produces primary extraction of the fired case as the lugs turn out of their seats. This requires no additional effort over the ordinary one of opening the bolt.

The extreme travel of the bolt handle is five inches, and the motion is straight backward and forward, a mere flash of the wrist. The bolt or bolt parts do not cross the line of sight and the ejected case is thrown out to the right without crossing the sight line or interfering with the fire.

The bolt, going forward, picks up a fresh cartridge from the magazine, the head of the case slipping up into the hook of the extractor while the bolt is going forward. This puts the shell in the grasp of the bolt at all times and the extra effort of forcing the extractor over the rim of the case is done away with.

When the bolt reaches the limit of its forward travel and strikes the stop pin in the receiver, the forward motion of the bolt sleeve releases the locking teeth of the driving ribs from their engagement with those of the sleeve and the ribs compel the bolt to revolve, turning the lugs into their recesses and seating the cartridge in the chamber.

### KEEP YOUR ROSS TO YOUR SHOULDER WHEN YOU SHOOT. IT IS THE EASIEST WAY

The easiest and most natural method of using a Ross straight pull is to keep the rifle at the shoulder, throwing the second shot into the chamber before lowering the rifle. When the rifle is opened without having the butt against the shoulder or arm, slip the thumb of the right hand across the back of the receiver, giving a slight backward jerk on the bolt-handle. The pull in all cases should be close up to the bolt sleeve, making it straight to the rear and avoiding any tendency to cramp the bolt by pulling on the extreme outward end of the handle.

The quicker and snappier you make the motions in handling the Ross bolt, the easier it will work. The speed with which the bolt sleeve travels is a big factor in determining the ease of the bolt travel.

## TRY TO MATCH OUR MATCH RIFLES

### IF YOU ARE A TARGET SHOT THIS WILL INTEREST YOU

**I**F you are ambitious to show your best form on the rifle range and want absolutely the most accurate arm made, then the purchase of a Ross is imperative. A Ross .280 match rifle in the hands of a good shot is absolutely fatal to three-foot bull's-eyes at 1,100 yards.

Used with our special match ammunition—not that obtainable elsewhere—our .303 British match rifles will far outshoot the ordinary New Springfield or British Service Rifle.

Look  
Over  
the  
Ross

*Ross  
Rifles*

The King of match rifles is of course the Ross .280. With an accuracy by machine rest tests, considerably greater than the U. S. rifle with match ammunition, and a wind sensitiveness about one-half that of the 1906 U. S. cartridge, the Ross .280 will plug its shots into the bull's-eye at 1,100 yards with monotonous regularity while the other rifle is dropping to fours or worse, and it will carry through stray zephyrs straight to the bull while the other bullet is perhaps blown wide of even the ring marked with the red disc.

The Ross .280 match rifle will shoot group after group at 1,100 yards into sixteen to eighteen inch circles for each fifteen shots. This is nearly double the accuracy of the Ross Rifle and ammunition with which Mr. Blood won the International and Irish Championships in 1911. Yet, even that arm proved to be many points ahead of anything else shot on the Bisley range.

We fit our match rifles as desired, with regular match sights for the back position, using magnifying lenses and the rear sight on the heel of the rifle, or with vernier peep sights on the bridge of the rifle, giving a tremendous distance, between front and rear sights, 35 inches as compared with 22 for the Springfield.

The satisfactory shooting of our match rifles is absolutely guaranteed to purchasers.



Opens easily when opened with a snap this way. Easier still from the shoulder, which is better

## A FEW RECORDS OF ROSS RIFLES ON THE RANGE

### ROSS RIFLES HOLD MANY NOTEWORTHY RECORDS

No one will maintain that target records of a rifle are the only proofs of its superiority, yet no sensible person would deny that great weight should be given to superiority shown upon the target range in determining the relative merits of rifles. No rifle which has ever been shot has been so uniformly successful or has brought to its fortunate users such a long list of magnificent prizes as has the Ross.

We have mentioned that it won in 1911, in the hands of Private Clifford, a Canadian rifleman, the King's Prize and the Prince of Wales Match, a record never before equalled. Mr. Maurice Blood also won that year at Bisley the Grand Aggregate Prize in matches which, because all long range events and owing to the high skill of the competitors, are without question the most difficult rifle matches known.

In 1912 Corporal Mortimer, of Canada, with a grand total and a series of targets worthy to command the highest praise, once more won the Grand Aggregate at Bisley and added another link to the chain which must inevitably bind every fair-minded man to a belief that Ross Rifles on the range as elsewhere are incomparable.

The Birmingham Daily Post referred to the success of the Ross Rifle in the 1912 Match Rifle Competitions in the following terms:—

"During the week-end a mathematically inclined Ross Rifle enthusiast has been making calculations respecting the results of the series of match rifle competitions last week. The results are interesting. In elaborate detail, it is shown that of the 94 prizes in the big events in the match rifle list, 50 were gained by users of Ross Match Rifles and ammunition, the value of the prizes so gained being £278, out of the £373 value of the prizes offered. Further, it is shown that of the 373 competitors firing, 119 used the Ross make of rifle, by means of which four possibles were put on at 900 yards and seven at 1,000 yards. In detail it is shown that the Ross Rifle users claimed more than 50 per cent. of the prizes in the Waldegrave, the Bass and the Edge shoots, while taking all three in the Wimbledon Cup, two out of four in the King's Norton, and six out of seven in the Hopton aggregate, more than 50 per cent. of the prize money being claimed in all shoots but one."

*Look  
Over  
the  
Ross*

## Ross Rifles



### ROSS .280 MATCH RIFLE

WEIGHT, about 9 lbs., 4 oz.

LENGTH of barrel, 30½ in.

SIGHTS, none—furnished on application.

STOCK, Italian Walnut.

MAGAZINE, none.

CARTRIDGE, Ross .280 Match.

BUILT to conform to the British N. R. A.  
regulations.

PRICE, \$60.00.

## WHAT SOME EXPERTS SAY ABOUT THE ROSS

**I**T'S an easy matter to blow your own horn. All that is necessary is plenty of wind—or in print, plenty of printer's ink. The difficult thing is to form a brass band to sound your praises out of the men whose opinion is worth something.

You've heard our announcement. Now listen to the music of the band.

"I never received a rifle before that did not need several hours' work on the action, trigger pull, etc., in order to put it in shape for efficient use. The action and pull of this arm were absolutely perfect. I was prepared for a rapid action, but nevertheless was surprised at the speed with which this one can be worked. Moreover, it seems to differ from other bolt rifles that I have used, in that the action works just as easily with cartridges in the action as when the action is empty. The trigger pull is the best that I have ever felt on any arm."—Lieutenant Townsend Whelen, 29th Infantry, U. S. A., author of "Suggestions to Military Rifemen," and a recognized authority on rifles and rifle shooting.

After Bisley, 1908, the first appearance of the Ross on the target range in England.

"An individual triumph. Lee Enfield hopelessly behind. A rifle of wondrous precision."—From the Morning Post.

"Ross Rifle beats all the world's rifles. Lee Enfield now obsolete, scrap it."—From the Standard.

**AND**—similar opinions in nearly every English news and sporting paper.

Then when the Ross .280 again jarred up the shooting world by its great performance at Bisley in 1911, winning the Hopton Aggregate and the Long Range Championship of England, the newspapers and service papers had many warm words of earnest and well-deserved praise.

## THE ROSS .22 CALIBRE

### A SMALL NEW ROSS READY

**H**ERE is a new Ross Rifle with a breech mechanism as unique and as satisfactory as that of its bigger brothers. A straight pull, single shot, splendidly made, .22-calibre rifle, that for ease of manipulation, positiveness of action and safety, cannot be touched by any other single shot .22 on the market.

The .22 rifle is by far the most popular rifle the world over. The low cost of its ammunition, the small noise, and the slight energy of the

Look  
Over  
the  
Ross

bullet are features that make the .22-calibre rifle used everywhere. It will put cats in the other world or will slay tin cans and devastate reams of paper targets. In the camp, properly used, it is responsible for many a mulligan stew that could not have been obtained with a high-power rifle, while its light weight makes it very desirable on the fishing trip where a rifle is regarded as rather a side issue.

The small size and the lack of energy of the .22 cartridge has seemingly persuaded many rifle makers that the weapon to use it is a toy and that any rifle and breech mechanism will suffice to shoot it.

The market is flooded with .22-calibre rifles, some of them good, some of them merely indifferent, and some of them simply trashy in their material and design. The actions are often not gas tight nor strong enough to guarantee the safety of their users, the metal used is frequently inferior and the design of the breech closing mechanism sometimes allows the rifle to be fired in another manner than by pulling the trigger. Occasionally the user of one of these imperfect arms loses his eyesight. There is ample "ginger" in the .22 cartridge to blow open a faulty bolt.



#### ROSS .22 SPORTING RIFLE

WEIGHT, about 4 lbs., 8 oz.

LENGTH of barrel, 18 or 20 in.

FORESIGHT, Adjustable.

REAR SIGHT, Peep.

STOCK, Good Quality Walnut.

CARTRIDGE, .22 Short, .22 Long, .22

Long Rifle.

PRICE, \$7.50.

#### POOR .22, POOR BOY!

A poor .22-calibre rifle is a very undesirable weapon to place in the hands of a boy, who, like the rest of us, is sometimes disposed to be careless. There should be absolutely no chance for accident other than that which follows pulling the trigger at the wrong time and which the most careful rifle-maker cannot guard against.

We have designed and built the Ross .22 along the lines of sound rifle construction, using as much care in making it entirely safe and strong as we have successfully devoted to that purpose in building our big game and target arms. We do not use cheap iron parts in its construction. The bolt is not actuated by any small and unhandy bolt lever. There is no gas escape from the action. It is impossible to fire the rifle until the bolt is closed. The cartridge cannot be exploded any other way than by pulling the trigger. The barrel is bored to shoot as accurately as any .22-calibre rifle made. The stocks of our .22's are made from the same quality of wood as our military rifles, which means of a good grade of walnut, not cedar nor pine nor any other of the soft unsuitable woods often used on cheap .22-calibres.

#### THE ROSS .22 IS EASILY OPERATED

The Ross .22 is a straight-pull rifle in which is embodied totally different principles than those used in our larger rifles, but sound principles assuring perfect safety with this light cartridge. But two motions are necessary to open the bolt, close it again and cock the firing mechanism.



## Ross Rifles

The portion of the bolt to be grasped by the thumb and finger is large and easy to handle. No delicate manipulation of a Lilliputian bolt handle is necessary with this rifle.

To operate the Ross .22, the rifle being uncocked, merely pull straight back on the milled ears at the back of the bolt. Drop a cartridge into the chamber—it is not necessary to start it into the chamber or to take any care in placing it other than to see that the bullet end points toward the barrel. Press the bolt home with the palm of the hand. All that remains to fire the rifle is to press the trigger.

As long as the rifle is cocked, the bolt is locked against opening. There is no uncertainty, no half way position with the Ross .22. To open when the rifle is cocked, press upward on the release button just in front of the trigger guard. This will allow the bolt to spring open, throwing out the loaded shell if there is one in the chamber. The mechanism on this rifle is the simplest and most positive of any single shot on the market.

To take out the Ross bolt, with the rifle open, unscrew the milled cap over the breech end of the barrel. In replacing it, hold back on the trigger while the bolt is being slid into its seat.

To take down the rifle, merely turn out the forestock screw, which allows the barrel and receiver to be separated from the stock. The rifle packs into the length of the stock.

### AN ELEVATING REAR SIGHT IS A FEATURE

One of the features of the Ross .22 is the elevating peep rear sight, fixed to the rear of the receiver close to the eye and part of the regular equipment of the rifle. To change the elevation of the sight, turn the knurled head projecting below the sight. The purchaser of the Ross .22 gets a rifle made ready to use, proper sights and all, without going to an extra expense for peep sight, and the trouble of having it fitted and shot for accuracy. In comparing the cost of the Ross .22-calibre with any other single shot, you should add \$3 to the cost of the other arm to bring it up to the equipment of this Ross. The sights are furnished with an aperture of .05 of an inch.

To lock the rifle against firing or opening, push the safety bolt from left to right until the word "on" is exposed. The arm can be put in readiness to fire far more quickly than a hammer can be pulled to full cock. When the Ross is locked safe it cannot be fired by an accidental blow on the end of the cocking piece, as from a fall. This not true of all arms.

The rifle is chambered to take the .22 Long Rifle cartridge, but it is rifled to give good results, with the Long and the Short, any of which may be used in the rifle without trouble. However, persistent use of the Short cartridge in any rifle chambered for the Long Rifle will eventually burn the chamber enough to cause the cases of the Long Rifle to stick and cause trouble in extracting them. This is not the fault of the rifle, but is true of any arm in which all three cartridges are used indiscriminately.



ROSS .22 CADET RIFLE

WEIGHT, about 5 lbs.  
LENGTH of barrel, 21 in.  
FORESIGHT, Adjustable.

REAR SIGHT, Peep.  
STOCK, Good Quality Walnut.  
CARTRIDGE, .22 Short, .22 Long, .22  
Long Rifle.

PRICE, \$12.00—Special Price to Cadet  
Organizations.

Look  
Over  
the  
Ross

There will be no trouble if the Short is used entirely, or if the Long Rifle is the only one shot in the arm. The sticking takes place only where Shorts have been shot enough to erode the chamber and then Long Rifles are used.

The stocks on this rifle are made with short full pistol grip, steel shotgun-shaped butt plate and good oiled finish. For the boy the stock length is 12 $\frac{1}{2}$  inches. For the man who likes to use a light .22 we make a stock 14 inches long. No extra charge for choice of length.

Weight of rifle about 4 lbs. Length of barrel, 20 inches.

## HOW TO USE THE ROSS RIFLE

### TO OPEN THE CHAMBER

**G**RASP the bolt handle between the thumb and the first and second fingers and with the butt on the arm between the elbow and shoulder or at the shoulder, give the handle a brisk pull to the rear. The amount of force required is small, but the motion should be quick and snappy. The Ross is the easiest working of all hand functioned rifles when it is used as directed.

### TO CLOSE THE CHAMBER

Push the bolt smartly forward as far as it will go. The straight motion forward picks up a cartridge from the magazine, inserts it into the chamber, closes the bolt and locks it, leaving the rifle ready to fire. There are no revolving motions of the Ross bolt handle to unlock the bolt as with some arms, the sole movements of the Ross bolt consist of a slide backward and forward of about five inches.

### TO LOAD THE MAGAZINE

Press cartridges down against the follower until they are engaged by the lip of the magazine. No care is necessary to get the rear ends of the cartridges in any certain position; only see that the bullet ends are toward the chamber. You can load the Ross in the dark and do it quicker than the other fellow can load his old-fashioned box magazine gun in broad daylight.

The .280 Ross magazine holds four cartridges, which with one in the chamber, gives five shots at the user's disposal.

The .303 British holds five cartridges in the magazine. It is loadable by means of a clip or charger, or the cartridges may be inserted one at a time, keeping the magazine replenished at all times.

### TO PUT THE ROSS RIFLE AT "SAFE"

The Ross bolt is designed so it can be locked against firing or opening when the rifle is cocked and can be locked against opening when the firing pin is forward-snapped. This means that you can carry the rifle uncocked and with the chamber empty without danger of the action being pulled part way open by brush catching in it. This is not true of other bolt rifles. When the rifle is cocked and the safety bolt turned to safe, the rifle cannot be pulled part way open by any obstructions catching in the working mechanism. Review the various rifles with which you are acquainted and see whether this is true of them.

To lock the rifle against firing or opening, push the thumb piece of the safety bolt over until the word "safe" is exposed. If the rifle is carried cocked and loaded and a quick shot is expected the safety bolt may be pulled up to a position nearly vertical, leaving the rifle still safe. The arm can be put in readiness to fire more quickly than a hammer can be pulled to full cock. When the Ross is locked safe it cannot be fired by an accidental blow on the end of the cocking piece, as from a fall. This is not true of all arms.

## TO TAKE OUT THE ROSS BOLT

Turn down the bolt stop to a horizontal position and withdraw the bolt. When the bolt is replaced, see that the bolt stop is turned up into place to prevent the bolt from sliding violently out to the rear when you open the rifle. If the bolt becomes unlocked from its engagement with the threads in the sleeve, while it is out of the rifle, and turns back into the sleeve under the pressure of the main spring, grasp the bolt head, and holding the sleeve in the other hand, turn bolt head out to its extended position. It will not enter the rifle any other way.

## THE RIFLE IN THE FIELD

The Ross Rifle is the safest of any against jams or freezing up in low temperatures, but a certain amount of precaution is necessary with any firearm to prevent disappointment.

If the rifle is used in temperatures low enough to solidify oil and thus clog up the rifle, wipe the bolt and especially the cocking piece entirely free from grease. This does not in the least interfere with its working. Our rifles have been used on big game at forty below zero without giving the slightest trouble.

Where the snow tends to pile up around the bolt, or sand is blowing hard, carry the rifle with the chamber empty and the safety on, the cocking piece of course being forward. The opening motion of the bolt in loading clears the mechanism of any snow or sand that may have gathered around it and makes the first shot absolutely certain.

It is safer under ordinary circumstances to carry the arm with the chamber empty, loading only when a shot is very probable. The Ross safety bolt is safer than that of any other pattern of arm, particularly those that lock the trigger in an attempt to prevent accidental discharge, but the safest rifle of all, except when near game, is the one with no cartridge in the chamber.

If obstructions get into the barrel, do not attempt to shoot them out unless you are anxious to buy a new rifle and perhaps to find yourself lacking a hand and arm or other useful members. In all such cases the air between the bullet and the obstruction being compressed suddenly the resulting pressure may bulge the barrel or perhaps burst it.

Carry a pull-through or field cleaner and use it if leaves or dirt or even snow get into the barrel.

## TAKING APART THE RIFLE

The magazine and bolt can be withdrawn in a few seconds, and this is usually enough to permit you to keep the rifle in perfect shooting condition.

To take off the magazine with its mechanism, press upward with the point of a bullet or similar shaped object inserted in the hole at the forward end of the magazine floor plate. This unlocks the catch. Pull the plate forward with the bullet, keeping the latch pressed upward. Withdraw the magazine floor plate, magazine spring and follower, tipping the follower slightly to clear the lip of the magazine well.

When replacing the magazine mechanism, see that the little lugs on the floor plate enter their slots and press the plate backward until the lip at the rear end engages in the slot in the trigger guard and the catch snaps into place.

To remove the extractor, press outward on the hook to clear the bolt head and draw it forward.

Further dismounting is absolutely unnecessary except in the rare case of a broken part, and it should not be done.

As previously explained, we do not believe in putting a rifle out for general use in which the bolt can instantly be taken apart. Our bolts are not made to be taken down quickly. Any bolt can be removed from the rifle in two seconds, but to take the bolt apart will require more time. We have made it so with definite intent.

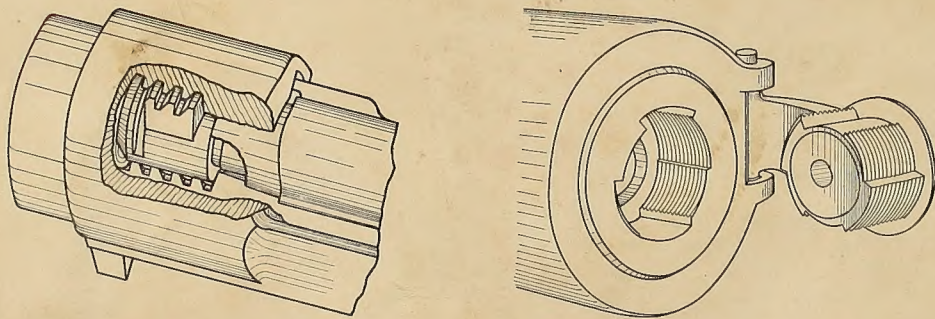
## LOOK OVER THE ROSS







## THE ROSS BOLT HEAD AND BREECH OF BIG GUN



**ROSS BOLTS LOCK HOME TO STAY**

**NO INTERRUPTED THREAD ROSS BOLT EVER BLEW OUT**